PHASE II ENVIRONMENTAL BASELINE SURVEY OF McCORMICK RANCH, KIRTLAND AIR FORCE BASE, NEW MEXICO

Part 5 of 5

Grace Hagaraty Jeff Johnson Pete Middlebrooks

GRAM, Inc 8500 Menaul Blvd NE Albuquerque, NM 87112

31 January 1996

Final Report

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PL-TR-95-1042

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Project Manager

FOR THE COMMANDER

MICHELLE L. HEDRICK, GS-13

Chief, Safety & Environmental

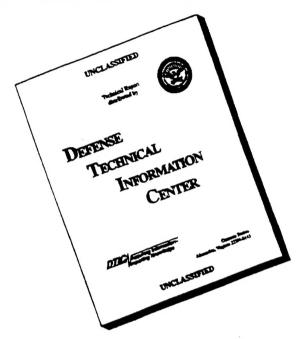
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| 4. Title & subtitle Phase II Environmental Basel Ranch, Kirtland AFB, NM, Pa | | | tract or Gr -93-C-0219 | | | |
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| 6. Author(s) Grace Hagaraty, GRAM, Inc. | | 5c. Pro | j ect # 9993 | 3 | | |
| Jeff Johnson, GRAM, Inc. Pete Middlebrooks, LATA | | 5d. Tas | k# 00 | | | |
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| 7. Performing Organization N GRAM, Inc. 8500 Menaul Blvd. N.E. Albuquerque, New Mexico 8 | ٠, | | 8. Perform | ing Organiza | tion Report # | |
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| 3550 Aberdeen Avenue, SE Kirtland AFB, NM 87117-57 | 76 | | 11. Monito | or Report # | | |
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| | ork done in associa | | | | | |
| 14. Abstract The Phase II E present on McCormick Ranch contaminants were identified meter, magnetometer/gradior were selected to conduct furfive areas and 13 specific hig compounds, PETN, TNT, TNT performed and no explosives found in 2 samples, mangane and radiation levels were bel | n. Explosive test areas using the following goneter, and ground pendiher environmental analytes explosive test sites. Independent or degradation products or degradation products exe was detected in 3 seconds. | having the gree eophysical sur- etrating radar. lysis. A total of The samples we nitrates and re- ets were identificamples, nitrates | eatest poter vey method From the g f 310 soil s vere screen adioactivity ied. Semi- | ntial for conta ds: EM 31 ter geophysical se amples were ged for semi-v y. Laboratory volatile organ scovered belo | aining soil rain conductivity urveys five areas collected from the rolatile organic r analyses were nic compounds were ow soil action levels | |
| 15. Subject Terms McCormic | k Ranch, Environment | al Baseline Sur | vey, Conta | mination | | |
| 16. Report 17. Abstract Unclassified | | 19. Limitation of Abstract Unlimited | 20. # of Pages 260 | 21. Respons (Name and T Michelle Hed 505-846-457 | Telephone #) drick | |



Quanterra Incorporated 880 Riverside Parkway West Sacramento, California 95605

916 373-5600 Telephone 916 372-1059 Fax

October 10, 1994

QUANTERRA PROJECT NUMBER: 077682

PO/CONTRACT: 006

Jeff Johnson Gram, Inc. 8500 Menaul Blvd. NE, #B-370 Albuquerque, NM 87112

Dear Mr. Johnson:

This report contains the analytical results for the one aqueous and eleven soil samples which were received under chain of custody by Quanterra West Sacramento on 14 September 1994. These samples are associated with your Kirtland AFB project.

The case narrative is an integral part of this report.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana LV Brooks Project Manager

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Includes Samples: 12

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Includes Samples: 1 - 12

Sample Data Sheets
Method Blank Report
Laboratory Control Sample Report (LCS)



CASE NARRATIVE

QUANTERRA PROJECT NUMBER 077682

General Comments

Temperature blanks were not present upon sample receipt at the laboratory. The ambient temperatures were 2.2 degrees C and 4.1 degrees C.

Semivolatile Organics - Method 8270

The Laboratory Control Sample (LCS) 20SEP94-11A was found to have 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Hexachloroethane, 2-Nitroaniline, Dimethyl phthalate, and Bis(2-ethylhexyl)phthalate above the control limits.

The Laboratory Control Sample (LCS) 20SEP94-11A was found to have 3-Nitroaniline above the control limits.

These compounds were not detected in the samples, thus no correction action was necessary.

Sample 02960001 (Quanterra ID 077682-009) has 2,4,6-Tribromophenol surrogate recovery above the control limits. The sample was not detected for analytes, thus the no corrective action was necessary.

Due to electronic deliverable limitations, the library search data is available in hardcopy format only.

Specialty Explosives by HPLC/MS - Method 8321

Sample 03140001 (Quanterra ID 077682-012) was re-extracted outside of the analytical holding time due to the initial extraction and analysis resulted in poor chromatography.

The Duplicate Control Sample (DCS) has Tetryl recoveries above the control limit. The sample was not detected for analytes, thus no corrective action was necessary.

Tetryl was above the continuing calibration control limits which was associated with samples 00970001, 01090001, 02660001, 02960001,01130001, and 01200001 (Quanterra IDs 077682-001 thru -011). The end bracketing sample for Tetryl was within the control limits. The samples were subsequestily re-injected with Tetryl within the control limits.



CASE NARRATIVE - cont. QUANTERRA PROJECT NUMBER 077682

Selected Metals - Various Methods

The ICAP method blank (22SEP94-TX) was found to have 5.8 mg/kg of Iron present.

No other anomalies were associated with this report.



QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documental quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.



SAMPLE DESCRIPTION INFORMATION for Gram, Inc.

| | | | | Sampled | Received |
|--|--|--|--|--|--|
| Lab ID | Client ID | | Matrix | Date Tim | e Date |
| 077682-0001-SA 077682-0002-SA 077682-0003-SA 077682-0004-SA 077682-0006-SA 077682-0007-SA 077682-0008-SA 077682-0008-SA | 01780001 01790001 01790002 01800001 01930001 00970001 01090001 02660001 | (0.00,3.00,) (0.00,3.00,) (0.00,3.00,) (0.00,3.00,) (3.00,6.00,) (3.00,6.00,) (2.00,3.00,) (2.50,4.00,) | SOIL SOIL SOIL SOIL SOIL SOIL | 07 SEP 94 15: 07 SEP 94 15: 07 SEP 94 15: 07 SEP 94 15: 08 SEP 94 09: 09 SEP 94 09: 09 SEP 94 10: 09 SEP 94 11: | 00 14 SEP 94 00 14 SEP 94 00 14 SEP 94 30 14 SEP 94 00 14 SEP 94 30 14 SEP 94 23 14 SEP 94 38 14 SEP 94 |
| 077682-0010-SA 077682-0011-SA 077682-0012-SA | 01130001 01200001 03140001 | (0.00,3.00,) (0.00,3.00,) (0.00,0.00,) | SOIL SOIL AQUEOUS | 12 SEP 94 08: 12 SEP 94 09: 13 SEP 94 11: | |
| 01100F-001F-3W | 03140001 | (0.00,0.00,) | AUGEOUS | 10 001 04 11. | DO IT OLI DT |

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CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

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| RTLD154 - O 1 9 3 - O 0 0 1 RTLD154 - O 0 9 7 - O 0 0 1 RTLD154 - O 1 0 9 - O 0 0 1 RTLD154 - O 1 0 9 - O 0 0 1 RTLD154 - O 1 0 0 0 1 RTLD154 - O 1 2 0 0 0 1 VATEX: VATEX: V. WATER A. WATER A. WATER A. WATER A. WATER A. AMBER GLASS NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF S 1 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | 31 | 75 | 7777 | 3777 | 1 | 1 | 7 | | 7 |
| RTLD154 - O O O O O O O O O O O O O O O O O O | 31 | 25 | 777; | 777 | 7 | | | 7 | |
| RTLD154 - O O 9 - O O RTLD154 - O S - O O O RTLD154 - O 2 O - O O AATRIX: WATRIX: P. POLYETHYLENE V. WATER AG - AMBER GLASS O O THER AG - AMBER GLASS NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF S | | 7.5 | 77; | 17 | | 7 | 7 | 7 | 7 |
| RTLD154 - C | 31 | | 7; | 7 | | 7 | \ | 7 | / |
| VATLD154 - O CONTAINER TYPES: VATRIX: V. WATER OOTHER AG - AMBER GLASS NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF S C C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | | 5 4/2/4 0845 | /: | ` | |) | 7 | / | 1 |
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| P - POLYETHYLENE W - WATER CG - CLEAR GLASS O - OTHER AG - AMBER GLASS NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF S C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | | LABORATÓRY ANALYSES: | | | | | | | |
| W. WATER OG. CLEAR GLASS O. OTHER AG. AMBER GLASS NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF S C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | -1 | EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | 1330-ADD-1, SV | W8330-ADD-2) | • | | 1 | , , , , | , |
|)-OTHER NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF S I C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | | NITRATE + NITRITE (E353.2) | 2) | | | ۲ | gemples | emples held a gove | 44 500. |
| NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF STORE IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | e. | SEMI-VOCs (SW8270) | | | | | S | conclution | |
| IC IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME | SOIL AT 4. | ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | NUS LEAD, AR | RENIC, SELEP | NIUM, AND N | MERCURY | | ^ | nes 41. |
| HIGH CONTROL BEDNING OF STANDING STANDS OF STA | E FOR ALL 5. | MERCURY (SW7471) FAD (SW7421) ARSENIC (SW7060) SELENII IM (SW7740) | (SW7060), SEL | ENIUM (SW77 | 740) | | | | |
| (RE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7) | 7. 7. 7. | CYANIDE (SW9012) | | | | | • | | |
| RELINQUISHED BY: | | RECEIVED BY: | ED BY: | | | | | | |
| COMPANY NAME SIGNATURE | RE | COMPANY NAME | | SIGNA | SIGNATURE | | DATE | TIME | |
| Gram, INC + Lhonda-11 | 1 etter | GROM THE | 485 | 149 | 205049 | | 5/16 | 0991 | |
| | | | | | | | | | |
| RELEASED TO SHIPPER BY: | | | RECEIV | кесегуед ву ѕніррек: | PER: | | | | |
| COMPANY NAME SIGNATURE | RE | COMPANY NAME | | SIGNATURE | | | BILL OF LADING # | DATE | TIME |
| CRAM, INC SEAPLIONNESS | 1000 | 167 CX | | | | 823535 4437 | 4433 | 11/2 | 5.61 |
| RELEASED TO LABORATORY BY (SHIPPER): | R): | RE | RECEIVED BY LABORATORY: | ABORATORY | | | _ | | , |
| COMPANY NAME SIGNATURE | JRE | COMPANY NAME | , | SIGN | SIGNATURE | | DATE | TIME | |
| | | Willewin | 123/ | " Frit" | | | 46-11-6 | 0855 | |

CHAIN OF CUSTODY

| FRILLING LARGE LUNN AFD TYPE OF CONTAINER 1/4 | PROTECT NAME: | McCORMICK RANCH | # OF CONTAINERS • | 4 | 7 | + | | + | - |
|--|--|--|-----------------------------|---|-------------|--------|----------|-----------|--------|
| CONTINUER PRESENTING COLLECTED 1 1 1 1 1 1 1 1 1 | CLIENTS | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | AG P | AG | 1 | Pd. | + | - 7 |
| COLINICATION COLINECTED 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 4 1 1 1 2 3 1 1 1 1 1 1 1 1 1 | PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | 2 | | | _ | _ | 1 |
| AMAINER PROJUSTED 1 2 3 4 4 4 4 4 4 4 4 4 | SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | る五 | | | _ | _ | 7 |
| MATRIX COLLECTED | LABORATORY CONTACT: | | ANALYSES REQUESTED | 1 2 | , | | 1 | | ١ |
| TAMER TIPES: I ANDORATORY ANALYSES: TAMER TIPES: I EXPLOSIVES (SWR370, SWR330-ADD-1, SWR330-ADD-2) CLEAR GLASS AMER GLASS AMER GLASS AND STORE EACH SOIL SAMPLE I EXPLOSIVES (SWR370) AND STORE ACH SOIL SAMPLE I COMPANY NAME STORE ACH SOIL SAMPLE COMPANY NAME STORE ACH SOIL SAMPLE STORATURE STORATURE STORATURE STORATURE STORATURE COMPANY NAME STORATURE STORATURE COMPANY NAME STORATURE S | SAMPLE IDENTIFICATION | | | | , | | | | |
| CO 1 V V V V V V V V V | ITE ID, LOCATION ID, SAMI | PLE ID) | | | | - | | > | > |
| RECIEVE DISTANCE CONTAINER TITES. CO-CLEAR GLASS RECIEVE BY CO-CLEAR GLASS RECIEVE BY AG. AMPLES ONLY AG. AMBIEC GLASS AG. CLEAR GLASS AG. AMBIEC GLASS AG. CLEAR GLASS AG. AMBIEC GLASS AG. CLEAR GLASS AG. AMBIEC GLASS AG. CLEAR GLASS AG | RTLD134-0314 | .0001 | 46/11/6 | X | × | \ X | × | 1 | 1 |
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| SOUL SAMPLES ONLY THE AND | RTLD154 - | | | | | | | | |
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| SOIL SAMPLES ONLY ONE 16-CC CLEAR OLASS SOIL SAMPLES ONLY ONE 16-CC COMPANY NAME RELACED TO SHIPPER BY: RELEASED TO LABORATORY BY (SHIPPER): RELEASED TO LABORATORY BY LABOR | RTLD154. | | | | | | | | |
| CONTAINER TYPES: | RTLD154 | | | | | | | | |
| SOUL SAMPLES ONLY ONE LEAR OLLASS SOUL SAMPLES ONLY ONE LE-CE CLEAR OLLASS 1 AR OF SOUL AT THE REQUIRED ANALYSES FOR EACH SOUL SAMPLE FIELD BY CHECKING THE APPROPRIATE BOXES (1 - 7) THE REQUIRED ANALYSES FOR EACH SOUL SAMPLE FIELD BY CHECKING THE APPROPRIATE BOXES (1 - 7) THE REQUIRED ANALYSES FOR EACH SOUL SAMPLE FIELD BY CHECKING THE APPROPRIATE BOXES (1 - 7) THE REQUIRED BY: RELEASED TO SHIPPER BY: RELEASED TO SHIPPER BY: RELEASED TO LABORATORE SIGNATURE COMPANY NAME RECEIVED BY LABORATORY: RECEIVED BY LABORATORY: RELEASED TO LABORATORE SIGNATURE COMPANY NAME SIGNATURE COMPANY NAME SIGNATURE THE COMPANY NAME SIGNATURE COMPANY NAME THE COMPANY NAME SIGNATURE COMPANY NAME SIGNATURE COMPANY NAME SIGNATURE THE COMPANY NAME SIGNATURE COMPANY NAME COMPANY NAME COMPANY NAME SIGNATURE COMPANY NAME C | RII DI SA. | | | | | | | | |
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| SOIL SAMPLES ONLY ONE 16-02 CLEAR CLASS SOIL SAMPLES ONLY ONE 16-02 CLEAR CLASS AG - AMBER CLASS AG | The state of the s | | | | | | | | |
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| ER CG-CLEAR GLASS 1. EXPLOSIVES (3W62012) 3. WITNATE (333.2) CG-CLEAR GLASS 3. SERIOUS SOIL AT 4. ICF METALS (5W6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY COUNTRIED BY CHECKING THE APPROPRIATE BOXES (1.7) RELINQUISED TO PROVIDE SUFFICIENT SAMPLE SIGNATURE COMPANY NAME RELEASED TO SHIPPER BY: RECEIVED BY SHIPPER: SIGNATURE COMPANY NAME RELEASED TO LABORATORE SIGNATURE COMPANY NAME RELEASED TO LABORATORE COMPANY NAME RECEIVED BY SHIPPER: RECEIVED BY LABORATORE COMPANY NAME RECEIVED BY LABORATORY E SIGNATURE COMPANY NAME RELEASED TO LABORATORY E SIGNATURE COMPANY NAME RELEASED TO LABORATORY BY (SHIPPER) | MATRIX: | CONTAINER TYPES: | LABORATORY ANALYSES: | 220. ADD.1 SW8330-AD | 0-2) | | | 7 | |
| 2. NITRATE + NITRITE (±353.2) 3. SEMI-VOCs (SW8270) 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY 5. MERCURY (SW7471) 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) 7. CYANIDE (SW9012) 7. CYANIDE (SW9012) 8. RECEIVED BY: 8. RECEIVED BY SHIPPER: 8. BILL OF LADI COMPANY NAME 8. SIGNATURE 1. F. E. U | S. SOIL. | P - POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8 | SSU-ALLIL, SW SSSU-ALL | | | 1 | / / | 1/1 |
| 3. SEMI-VOC. (SW8270) 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY 5. MERCURY (SW7471) 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) 7. CYANIDE (SW9012) 7. CYANIDE (SW9012) 8. RECEIVED BY: 8. SIGNATURE 8. SIGNATURE 9. SIGNATURE 1. COMPANY NAME 8. SIGNATURE 8. SIGNA | W-WATER | CG - CLEAR GLASS | 2. NITRATE + NITRIE (E3533. | c: | | | Day | 12 / 16 m | ž Z |
| 4. ICP METALS (SWEDID), MINUS LEAD, AND TOTALS (SW771) 6. LEAD (SW771), ARSENIC (SW7060), SELENIUM (SW7740) 7. CYANIDE (SW9012) RECEIVED BY: COMPANY NAME COMPANY NAME RECEIVED BY LABORATORY: RECEIVED BY LABORATORY: COMPANY NAME SIGNATURE D SIGNATURE COMPANY NAME COMPANY NAME SIGNATURE D SIGNAT | D-OTHER | AG - AMBER GLASS | 3. SEMI-VOCs (SW8270) | TO LEAD ADCENIC OF | FNITM AND M | ERCURY | / | condition | ÷ |
| 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) 7. CYANIDE (SW9012) | NOTE: FOR SOIL SAMPLES (| ONLY ONE 16-02 GLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MIN | IOS LEAD, ANSEINIC, SE | | | | 7. | 110 |
| T. CYANIDE (SW9012) RECEIVED BY: COMPANY NAME COMPANY NAME COMPANY NAME COMPANY NAME COMPANY NAME COMPANY NAME SIGNATURE SIGNATURE SIGNATURE PATE TIME TIME 1 (12) 5 35 34 37 4137 COMPANY NAME SIGNATURE SIGNATURE SIGNATURE PATE TIME 1 (12) 5 31 4137 TOWN FOR THE TIME COMPANY NAME SIGNATURE SIGNATURE SIGNATURE SIGNATURE TOWN FOR THE TIME TOWN FOR THE TIME SIGNATURE | 4 C IS REQUIRED TO PROVID | E SUFFICIENT SAMPLE VOLUME FOR ALL | S. MERCURY (SW /4/1) | SW7060) SELENIUM (S | W7740) | | | | |
| COMPANY NAME SIGNATURE SIGNATUR | ANALYSES. THE REQUIRED ABE IDENTIFIED BY CHECK! | ANALYSES FOR EACH SOIL SAMFLE NG THE APPROPRIATE BOXES (1-7) | 7. CYANIDE (SW9012) | | | | | | |
| AME RELEASED TO SHIPPER BY: RECEIVED BY SHIPPER: RECEIVED BY SHIPPER: RECEIVED BY SHIPPER: RECEIVED BY LABORATORY: | | RELINOUISHED BY: | RECEIVE | | | | | TIME | _ |
| RECEIVED BY SHIPPER: RECEIVED BY SHIPPER: BILL OF LADING # DATE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE SIGNATURE DATE TIME SIGNATURE SIGNATURE DATE P. C. M. P. M. S. | COMPANY NAME | SIGNATURE | COMPANY NAME | SIC | NATURE | | DAIE | | _ |
| RECEIVED BY SHIPPER: RECEIVED BY SHIPPER: SIGNATURE | | | | | | | | | |
| RECEIVED BY SHIPPER: AME SIGNATURE COMPANY NAME (RIGNATURE F23535 4437 G13 SIGNATURE BILL OF LADING # DATE PATE BATE TIME SIGNATURE COMPANY NAME SIGNATURE SIGNATURE COMPANY NAME SIGNATURE DATE TIME PATE | | | | | | | | _ | |
| ELEASED TO LABORATORY BY (SHIPPER): COMPANY NAME SIGNATURE COMPANY NAME SIGNATURE COMPANY NAME SIGNATURE O.V. 5V. | RI | ELEASED TO SHIPPER BY: | | RECEIVED BY SI | IIPPER: | o i na | # SMC 4 | DATE | TIME |
| ELEASED TO LABORATORY BY (SHIPPER): A SIGNATURE COMPANY NAME SIGNATURE 6.0-64 6. | COMPANY NAME | SIGNATURE | COMPANY NAME | ANGINATION OF THE PROPERTY OF | JKE . | 77764 | CE#0 | 912 | 1 |
| ELEASED TO LABORATORY BY (SHIPPER): RECEIVED BY LABORATORY: SIGNATURE O.V. 54, C. | GRAM THE | Ø | reverx | | 11.71 | | | | |
| SED TO LABORATORY BY (SHIPTER): SIGNATURE COMPANY NAME SIGNATURE OJV-64/ | _ | Ta Judita De Jacobs de Judita De Jacobs de Judita De Jacobs de Judita De Jacobs de Jac | 38 | CEIVED BY LABORATO | RY: | | | | Γ |
| SIGNATURE COMPANY NAME | RELEASEI | O TO LABORATORY BY (SHIFFER): | | 15 | GNATURE | | DATE | TIME | _ |
| | COMPANY NAME | SIGNATURE | COMPANY NAME | 1. 2.710 | | | 19-11-64 | 1 1855 | |



Method 8321

Client Name: Gram, Inc.

(0.00, 3.00,) 01200001 Client ID:

077682-0011-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

Dry Wt. Reporting Limit Result Units Parameter 0.50 mg/kg ND Nitroglycerin PETN 0.50 mg/kg ND

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

T 301



QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|--|--|--|--|
| 077682-0001-SA 077682-0002-SA 077682-0003-SA 077682-0004-SA 077682-0005-SA 077682-0006-SA 077682-0007-SA 077682-0008-SA 077682-0009-SA 077682-0010-SA 077682-0011-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S | 19 SEP 94-7B 19 SEP 94-7B | 19 SEP 94-7B 19 SEP 94-7B |

Method 8321

Client Name: Gram, Inc.

(0.00, 3.00,)01780001 Client ID:

077682-0001-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 19 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

Dry Wt. Reporting Limit Units Result Parameter 0.50 ND mg/kg Nitroglycerin PETN 0.50 ND mg/kg

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

1 303



Method 8321

Client Name: Gram, Inc.

(0.00, 3.00,)01790001 Client ID:

077682-0002-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: 14 SEP 94 Authorized:

Dry Wt. Reporting Limit Units Result Parameter 0.50 mq/kg ND Nitroglycerin 0.50 ND mg/kg PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 01790002 (0.00,3.00,)

077682-0003-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

T - 7:5

(wuanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc. Client ID: 01800001 Lab ID: 077682-0004-SA (0.00,3.00,)

Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler





Method 8321

Client Name: Gram, Inc. Client ID: 01930001 (0.00,3.00,)

077682-0005-SA Lab ID:

Received: 14 SEP 94 Sampled: 08 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Analyzed: 28 SEP 94 Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

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Method 8321

Client Name: Gram, Inc. Client ID: 00970001 (3.00,6.00,)

077682-0006-SA Lab ID:

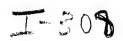
Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler





Method 8321

Client Name: Gram, Inc. Client ID: 01090001 (3.00,6.00,)

077682-0007-SA Lab ID:

Sampled: 09 SEP 94 Prepared: 20 SEP 94 Received: 14 SEP 94 SOIL Matrix: Analyzed: 28 SEP 94 Authorized: 14 SEP 94

Reporting Dry Wt. Units Limit Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

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Method 8321

Client Name: Gram, Inc. Client ID: 02660001 (2.00,3.00,)

077682-0008-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 SOIL Matrix: Prepared: 20 SEP 94 Authorized: 14 SEP 94

Reporting Dry Wt. Limit Result Units Parameter 0.50 mg/kg Nitroglycerin ND 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Civiuanterra

Livironmental

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc. Client ID: 01130001 (0.00, 3.00,)Client ID:

077682-0010-SA Lab ID: Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 20 SEP 94 SOIL Matrix:

14 SEP 94 Authorized: Dry Wt. Units Reporting

Limit Result Parameter 0.50 mg/kg ND Nitroglycerin PETN 0.50 ND mg/kg

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc.

Client ID: 02960001 (2.50,4.00,)

Lab ID: 077682-0009-SA

Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 28 SEP 94

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

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METHOD BLANK REPORT Special Services - LC Mass Spectrometry

| Analyte | | Result | Units | Reporting Limit |
|---|---------|--------------------------|----------------|--------------------|
| Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 19 SEP 94-7B Nitroglycerin PETN | QC Run: | 19 SEP 94-7B ND ND | mg/kg mg/kg | 0.50 0.50 |
| Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 19 SEP 94-7B Nitroglycerin PETN | QC Run: | 19 SEP 94-7B ND ND | mg/kg mg/kg | 0.50 0.50 |



LABORATORY CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte Category: 8321-IRP-S Explosives by HPLC/MS Matrix: SOIL QC Lot: 19 SEP 94-7B QC Run: 19 SEP 94-7B Concentration Units: mg/kg 65-135 121 5.00 6.07 Nitroglycerin 111 65-135 2.78 2.50 PETN

ND * Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.



Method 8321

Client Name: Gram, Inc. Client ID: 03140001 (0.00, 0.00,)

077682-0012-SA Lab ID:

Received: 14 SEP 94 Analyzed: 06 OCT 94 Sampled: 13 SEP 94 Prepared: 28 SEP 94 AQUEOUS Matrix: 14 SEP 94 Authorized:

Reporting Limit Units Result Parameter 50 ND ug/L Nitroglycerin 50 ug/L ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

Laboratory
Sample Number
QC Matrix
QC Category
QC Lot Number
QC Run Number
(SCS/BLANK)
Q77682-0012-SA
QUEOUS
QC Sategory
QC Lot Number
QC Run Number
(SCS/BLANK)



METHOD BLANK REPORT Special Services - LC Mass Spectrometry Project: 077682

8321-IRP-EXP-A Test:

Specialty Explosives by HPLC/MS

Matrix: AQUEOUS QC Lot: 19 SEP 94-7B QC Run: 27 SEP 94-7B

Reporting Limit Units Result Analyte 50 50 ug/L ug/L ND Nitroglycerin PETN ND



LABORATORY CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry

Project: 077682

Category: 8321-IRP-A Explosives by HPLC/MS

Matrix: AQUEOUS QC Lot: 19 SEP 94-7B QC Run: 27 SEP 94-7B QC Lot:

Concentration Units: ug/L

| Analyte | Concent | ration | Accui | racy(%) |
|--------------------|---------|----------|-------|---------|
| | Spiked | Measured | LCS | Limits |
| Nitroglycerin PETN | 800 | 603 | 75 | 65-135 |
| | 400 | 420 | 105 | 65-135 |

Calculations are performed before rounding to avoid round-off errors in calculated results.



Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 01780001 (0.00,3.00,) Client ID:

077682-0001-SA Lab ID:

Received: 14 SEP 94 Analyzed: 21 SEP 94 Sampled: 07 SEP 94 Prepared: 20 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

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Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 01790001 (0.00,3.00,)

077682-0002-SA Lab ID:

Received: 14 SEP 94 Analyzed: 21 SEP 94 Sampled: 07 SEP 94 Prepared: 20 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|--|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler





Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 01790002 (0.00,3.00,)

077682-0003-SA Lab ID:

Sampled: 07 SEP 94 Prepared: 20 SEP 94 Received: 14 SEP 94 SOIL Matrix: Analyzed: 21 SEP 94 Authorized: 14 SEP 94

| Parameter . | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler



Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.

Client ID: 01800001 (0.00,3.00,)

Lab ID: 077682-0004-SA

Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 21 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler





Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 01930001

(0.00,3.00,)

077682-0005-SA Lab ID:

Received: 14 SEP 94 Analyzed: 21 SEP 94 Sampled: 08 SEP 94 Prepared: 20 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

T-223



Method 8330

Client Name: Gram, Inc. Client ID: 00970001 (3.00,6.00,)

077682-0006-SA Lab ID:

Received: 14 SEP 94 Analyzed: 23 SEP 94 Sampled: 09 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

Method 8330

Client Name: Gram, Inc. Client ID: 01090001 (3.00,6.00,)

Lab ID:

077682-0007-SA

Sampled: 09 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

Received: 14 SEP 94 Analyzed: 23 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |
| 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND | mg/kg mg/kg mg/kg | 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 02660001 (2.00,3.00,)

077682-0008-SA Lab ID:

Sampled: 09 SEP 94 Received: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 23 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 02960001 (2.50,4.00,)

077682-0009-SA Lab ID:

Sampled: 09 SEP 94 Prepared: 20 SEP 94 Received: 14 SEP 94 SOIL Matrix: Analyzed: 23 SEP 94 14 SEP 94 Authorized:

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

I - 3,27



Method 8330

Client Name: Gram, Inc.

(0.00,3.00,) Client ID: 01130001

077682-0010-SA Lab ID:

Received: 14 SEP 94 Analyzed: 23 SEP 94 Sampled: 12 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

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Method 8330

Client Name: Gram, Inc. Client ID: 01200001 (0.00,3.00,)

077682-0011-SA Lab ID:

Received: 14 SEP 94 Analyzed: 23 SEP 94 Sampled: 12 SEP 94 Prepared: 20 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

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QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|--|--|--|--|
| 077682-0001-SA 077682-0002-SA 077682-0003-SA 077682-0004-SA 077682-0005-SA 077682-0006-SA 077682-0007-SA 077682-0008-SA 077682-0009-SA 077682-0010-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S | 19 SEP 94-7A 19 SEP 94-7A | 19 SEP 94-7A 19 SEP 94-7A |



METHOD BLANK REPORT Special Services - LC Mass Spectrometry

| Analyte | | | Result | Units | Reporting Limit |
|---|---------------|--------|---|---|--|
| Test: 8330-IRP-KAFB-1C Matrix: SOIL QC Lot: 19 SEP 94-7A HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | -S QC Run: | 19 SEP | 94-7A ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |
| Test: 8330-IRP-KAFB-10 Matrix: SOIL QC Lot: 19 SEP 94-7A HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | -S QC Run: | 19 SEP | 94 - 7A ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |



LABORATORY CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry

| Analyte | Concent Spiked | ration Measured | Accura LCS | acy(%) Limits |
|---|--|---|---|--|
| Category: 8330-IRP-S Explosives by HPLC Matrix: SOIL QC Lot: 19 SEP 94-7A QC Run: 19 SE Concentration Units: mg/kg | P 94-7A | | | |
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Am-DNT 4-Am-DNT 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 0.854 0.893 0.833 0.813 0.800 0.904 1.08 0.768 0.767 0.806 0.846 0.921 | 85 89 83 81 80 90 108 80 77 80 77 81 85 92 | 75-107 65-135 70-99 74-99 71-95 75-107 65-135 72-106 66-102 77-101 77-108 72-97 67-110 75-104 |

Calculations are performed before rounding to avoid round-off errors in calculated results.



Method 8330

Client Name: Gram, Inc. Client ID: 03140001

(0.00,0.00,)

077682-0012-SA Lab ID:

Received: 14 SEP 94 Sampled: 13 SEP 94 Prepared: 19 SEP 94 AQUEOUS Analyzed: 20 SEP 94 Matrix: Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit |
|---|--|--|---|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 13 7.3 14 4.0 6.4 6.9 4.0 5.7 9.4 12 8.5 7.9 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler





QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

Laboratory Sample Number

QC Matrix

QC Category

QC Lot Number (DCS)

QC Run Number (SCS/BLANK)

077682-0012-SA

AQUEOUS

8330-COE-A

19 SEP 94-7A

19 SEP 94-7A



METHOD BLANK REPORT Special Services - LC Mass Spectrometry

| Analyte | Result | Units | Reporting Limit |
|---|--|--|---|
| Test: 8330-IRPMS-1C-A Matrix: AQUEOUS QC Lot: 19 SEP 94-7A QC Run: 1 | 19 SEP 94-7A | | |
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 13 7.3 14 4.0 6.4 6.9 4.0 5.7 9.4 12 8.5 7.9 |



DUPLICATE CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry

| Analyte | Conce Spiked | ntratio DCS1 | n Measured DCS2 | AVG | | uracy age(%) Limits | Precision (RPD) DCS Limit |
|--|--|--|--|--|--|--|--|
| Category: 8330-COE-A Matrix: AQUEOUS QC Lot: 19 SEP 94-7A Concentration Units: ug/L HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Am-DNT 4-Am-DNT 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | 50 50 50 50 50 50 50 50 50 50 | 46.4 51.3 42.9 46.5 44.6 53.4 60.5 48.8 47.8 46.6 48.8 | 47.4 52.3 44.0 47.6 44.7 54.0 61.3 49.5 47.1 46.3 48.3 47.6 51.0 | 46.9 51.8 43.4 47.0 44.6 53.7 60.9 47.6 47.1 47.6 47.1 | 94 104 87 94 89 107 122 98 94 95 94 100 | 65-135 65-135 65-135 65-135 65-135 65-135 65-135 65-135 65-135 | 2.1 35.0 1.9 35.0 2.5 35.0 2.3 35.0 0.2 35.0 1.1 35.0 1.3 35.0 2.8 35.0 2.8 35.0 2.3 35.0 2.9 35.0 2.1 35.0 4.4 35.0 |

Calculations are performed before rounding to avoid round-off errors in calculated results.

Cijuanterra Environmental

Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 01790002

Client ID:

(0.00,3.00,)

Lab ID:

077682-0003-SA

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 21 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| | 2.4 | Dry Weight | Reporting Limit |
|---|----------|-------------|---------------------|
| Parameter | Result | Units | LIMIC |
| bis(2-Ethylhexyl)- | ND | mg/kg | 0.76 |
| phthalate | ND | mg/kg | 0.76 |
| Fluoranthene | | mg/kg | 0.76 |
| Fluorene | ND ND | mg/kg | 0.76 |
| Hexachlorobenzene | ND | mg/kg | 0.76 |
| Hexachlorobutadiene | ND | mg/kg | 0.76 |
| Hexachlorocyclopentadiene | ND | mg/kg | 0.76 |
| Hexachloroethane | ND | mg/kg | 0.76 |
| Indeno(1,2,3-cd)pyrene | ND | mg/kg | 0.76 |
| Isophorone | ND | mg/kg | 0.76 |
| 2-Methylnaphthalene | ND | mg/kg | 0.36 |
| 2-Methylphenol | ND | mg/kg | 0.36 |
| 4-Methylphenol | ND | mg/kg | 0.76 |
| Naphthalene | ND | mg/kg | 3.6 |
| 2-Nitroaniline | ND | mg/kg | 3.6 |
| 3-Nitroaniline 4-Nitroaniline | ND | mg/kg | 3.6 |
| | ND | mg/kg | 0.76 |
| Nitrobenzene | ND | mg/kg | 0.36 |
| 2-Nitrophenol | ND | mg/kg | 1.7 |
| 4-Nitrophenol N-Nitrosodiphenylamine | ND | mg/kg | 0.76 |
| N-Nitroso-di- | | | |
| | ND | mg/kg | 0.76 |
| n-propylamine Pentachlorophenol | ND | mg/kg | 3.6 |
| Phenanthrene | ND | mg/kg | 0.76 |
| Phenol | ND | mg/kg | 0.36 |
| | ND | mg/kg | 0.76 |
| Pyrene 1,2,4-Trichlorobenzene | ND | mg/kg | 0.76 |
| 2,4,5-Trichlorophenol | ND | mg/kg | 3.6 |
| 2,4,6-Trichlorophenol | ND | mg/kg | 0.36 |
| Surrogate | Recovery | y | |
| 44., 43 | 0.5 | a. | |
| Nitrobenzene-d5 | 85 | % | |
| 2-Fluorobiphenyl | 85 | % % % | |
| Terphenyl-d14 | 102 | /o e/ | |
| Pheno1-d5 | 90 88 | % % | |
| 2-Fluorophenol | 103 | % | |
| 2,4,6-Tribromophenol | 103 | , | ورو ورواله ما ما ال |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

Semivolatiles Library Search (20 Compound TID)



Method 8270

Client Name: Gram, Inc. Client ID: 01790002 Lab ID: 077682-0003 (0.00, 3.00,)

077682-0003-SA

Matrix: SOIL Sampled: 07 SEP 94 Prepared: NA Received: 14 SEP 94 Analyzed: 28 SEP 94 Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit |
|-----------------------------------|--------|---------|--------------------|
| Unknown oxygenated compound | 230 | ua /ka | |
| Unknown oxygenated compound | 2300 | ug/kg | |
| Unknown oxygenated compound | 65000 | ug/kg | |
| Unknown oxygenated compound | | ug/kg | |
| Unknown lactone | 1300 | ug/kg | |
| Unknown ketone | 240 | ug/kg | ~ ~ |
| | 630 | ug/kg | ~ - |
| Unknown | 430 | ug/kg | |
| Unknown oxygenated compound | 440 | ug/kg | |
| Propanoic acid, 2-methyl-,1-(1,1- | | -5/ 113 | |
| dimethylethyl)-! | 220 | ua/ka | |
| Unknown | 170 | ug/kg | |
| Unknown | | ug/kg | |
| Unknown | 320 | ug/kg | |
| Unknown | 190 | ug/kg | |
| | 220 | ug/kg | |
| Ergost-5-en-3-ol, (3.beta.)- | 240 | ug/kg | |
| Unknown | 220 | ug/kg | |
| Unknown | 360 | ug/kg | |
| Unknown | 150 | ug/kg | |
| TID Compound 18 | ND | ug/kg | |
| TID Compound 19 | | ug/kg | |
| TID Compound 20 | ND | ug/kg | |
| 110 Compound 20 | ND | ug/kg | |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers



Method 8270

Client Name: Gram, Inc. Client ID: 01930001 (0.00, 3.00,)Client ID:

lab ID:

Matrix:

077682-0005-SA SOIL

Sampled: 08 SEP 94 Prepared: 21 SEP 94

Received: 14 SEP 94 Analyzed: 28 SEP 94

14 SEP 94 Authorized: Dry Weight Reporting Limit Units Result Parameter 0.76 mq/kq ND Acenaphthene 0.76 mg/kg ND Acenaphthylene 0.76 mg/kg ND Anthracene mg/kg 0.76 ND Benzo(a)anthracene 0.76 mg/kg ND Benzo(a)pyrene 0.76 mg/kg ND Benzo(b)fluoranthene 0.76 mg/kg ND Benzo(g,h,i)perylene Benzo(k)fluoranthene 0.76 mg/kg ND 1.7 mg/kg ND Benzoic acid 1.4 mg/kg ND Benzyl alcohol 4-Bromophenyl 0.76 mg/kg ND phenyl ether 0.76 mg/kg ND Butyl benzyl phthalate mg/kg 1.4 ND 4-Chloroaniline 0.76 ND mg/kg 2,2'-Oxybis(1-chloropropane)
bis(2-Chloroethoxy)-0.76 mq/kq ND methane 0.76 ND mq/kg bis(2-Chloroethyl) ether 1.4 mg/kg ND 4-Chloro-3-methylphenol 0.76 mg/kg ND 2-Chloronaphthalene 0.36 mg/kg ND 2-Chlorophenol 4-Chlorophenyl 0.76 mg/kg ND phenyl ether 0.76 mg/kg ND Chrysene 0.76 mg/kg ND Di-n-butyl phthalate 0.76 mq/kg ND Dibenz(a,h)anthracene 0.76 mg/kg ND Dibenzofuran 0.76 mg/kg ND 1,2-Dichlorobenzene 0.76 mg/kg 1,3-Dichlorobenzene ND 0.76 mg/kg ND 1,4-Dichlorobenzene 1.4 ND mg/kg 3,3'-Dichlorobenzidine 0.36 ND mg/kg 2,4-Dichlorophenol 0.76 mg/kg ND Diethyl phthalate 0.36 mg/kg ND 2,4-Dimethylphenol 0.76 ND mg/kg Dimethyl phthalate 4.6-Dinitro-3.6 ND mg/kg 2-methylphenol 3.6 ND mg/kg 2,4-Dinitrophenol 0.76 mg/kg ND 2,4-Dinitrotoluene 0.76 mg/kg ND 2,6-Dinitrotoluene 0.76 ND mg/kg Di-n-octyl phthalate

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

(*|||*||uanterra Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 01930001

(0.00,3.00,)

Lab ID:

077682-0005-SA

Matrix: SOIL Authorized: 14 SEP 94

Sampled: 08 SEP 94 Prepared: 21 SEP 94 Received: 14 SEP 94 Analyzed: 28 SEP 94

| | D34 | Dry Weight Units | Reporting Limit |
|--|---|--|--|
| Parameter | Result | OHIES | Limit |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitrobenzene 2-Nitrophenol 4-Nitrophenol | ND ND ND ND ND ND ND ND ND ND ND ND ND N | mg/kg mg/kg mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kg | 0.76 0.76 0.76 0.76 0.76 0.76 0.76 0.76 |
| N-Nitrosodiphenylamine N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.76 0.76 3.6 0.76 0.36 0.76 0.76 3.6 0.36 |
| Surrogate | Recovery | y | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 68 76 96 78 74 99 | % % % % | |

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report. Rev 230787

T 740



Method 8270

Client Name: Gram, Inc. Client ID: 01790001 (0.00,3.00,)

077682-0002-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: NA SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit |
|-----------------------------------|--------|-------|--------------------|
| Unknown oxygenated compound | 410 | ug/kg | |
| Unknown oxygenated compound | 2200 | ug/kg | |
| Unknown oxygenated compound | 61000 | ug/kg | |
| Unknown oxygenated compound | 1100 | ug/kg | |
| Unknown lactone | 330 | ug/kg | en en |
| Unknown ketone | 490 | ug/kg | |
| Unknown oxygenated compound | 270 | ug/kg | |
| Unknown oxygenated compound | 290 | ug/kg | |
| Unknown oxygenated compound | 160 | ug/kg | |
| Propanoic acid, 2-methyl-,l-(1,1- | | | |
| dimethylethyl)-! | 250 | ug/kg | |
| Unknown | 180 | ug/kg | |
| Unknown | 270 | ug/kg | |
| Unknown | 200 | ug/kg | |
| Unknown | 260 | ug/kg | |
| Ergost-5-en-3-ol, (3.beta.)- | 220 | ug/kg | |
| Unknown | 210 | ug/kg | |
| Unknown | 290 | ug/kg | |
| Unknown | 160 | ug/kg | |
| TID Compound 19 | ND | ug/kg | |
| TID Compound 20 | ND | ug/kg | |
| | | | |

ND = Not detected NA = Not applicable

Approved By: Steve Rogers Reported By: Chris Jenkins

En-ironmental

Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 01790002 (0.00, 3.00,)

Lab ID:

077682-0003-SA

Received: 14 SEP 94 Analyzed: 28 SEP 94

Sampled: 07 SEP 94 Prepared: 21 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|----------|---------------------|--------------------|
| Acenaphthene | ND | mg/kg | 0.76 |
| Acenaphthylene | ND | mg/kg | 0.76 |
| Anthracene | ND | mg/kg | 0.76 0.76 |
| Benzo(a)anthracene | ND | mg/kg | 0.76 |
| Benzo(a)pyrene | ND | mg/kg | 0.76 |
| Benzo(b)fluoranthene | ND ND | mg/kg mg/kg | 0.76 |
| Benzo(g,h,i)perylene | ND | mg/kg | 0.76 |
| Benzo(k)fluoranthene | ND | mg/kg | 1.7 |
| Benzoic acid | ND | mg/kg | 1.4 |
| Benzyl alcohol | ND | פיי /פייי | |
| 4-Bromophenyl | ND | mg/kg | 0.76 |
| phenyl ether Butyl benzyl phthalate | ND | mg/kg | 0.76 |
| 4-Chloroaniline | ND | mg/kg | 1.4 |
| bis(2-Chloroethoxy)- | | <i>3,</i> 3 | |
| methane | ND | mg/kg | 0.76 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.76 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.76 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.4 |
| 2-Chloronaphthalene | ND | mg/kg | 0.76 0.36 |
| 2-Chlorophenol | ND | mg/kg | 0.30 |
| 4-Chlorophenyl | ND | mg/kg | 0.76 |
| phenyl ether | ND | mg/kg | 0.76 |
| Chrysene | ND | mg/kg | 0.76 |
| Di-n-butyl phthalate | ND | mg/kg | 0.76 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.76 |
| Dibenzofuran 1.2-Dichlorobenzene | ND | mg/kg | 0.76 |
| 1,3-Dichlorobenzene | ND | mg/kg | 0.76 |
| 1,4-Dichlorobenzene | ND | mg/kg | 0.76 |
| 3,3'-Dichlorobenzidine | ND | mg/kg | 1.4 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.36 |
| Diethyl phthalate | ND | mg/kg | 0.76 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.36 0.76 |
| Dimethyl phthalate | ND | mg/kg | 0.70 |
| 4,6-Dinitro- | ND | mg/kg | 3.6 |
| 2-methylphenol | ND | mg/kg | 3.6 |
| 2,4-Dinitrophenol | ND | mg/kg | 0.76 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.76 |
| 2,6-Dinitrotoluene | ND | mg/kg | 0.76 |
| Di-n-octyl phthalate | | | |

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Rev 230787

J-742

w uamerra Environmental

Method 8270

Client Name: Gram, Inc. Client ID: 01790001 (0.00,3.00,)

077682-0002-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 07 SEP 94 Prepared: 21 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|---|----------|---------------------|--------------------|
| | ND | /lea | 0.76 |
| Acenaphthene | ND | mg/kg | 0.76 |
| Acenaphthylene | ND | mg/kg | 0.76 |
| Anthracene | ND | mg/kg | 0.76 |
| Benzo(a)anthracene | ND | mg/kg | 0.76 |
| Benzo(a)pyrene | ND | mg/kg | 0.76 |
| Benzo(b)fluoranthene | ND ND | mg/kg | 0.76 |
| Benzo(g,h,i)perylene | ND | mg/kg mg/kg | 0.76 |
| Benzo(k) fluoranthene | ND | | 1.7 |
| Benzoic acid | ND ND | mg/kg mg/kg | 1.4 |
| Benzyl alcohol | NU | ilig/ kg | 1.7 |
| 4-Bromophenyl | ND | mg/kg | 0.76 |
| phenyl ether | ND | mg/kg | 0.76 |
| Butyl benzyl phthalate 4-Chloroaniline | ND | mg/kg | 1.4 |
| bis(2-Chloroethoxy)- | ND. | פיי /פייי | |
| methane | ND | mg/kg | 0.76 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.76 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.76 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.4 |
| 2-Chloronaphthalene | ND | mg/kg | 0.76 |
| 2-Chlorophenol | ND | mg/kg | 0.36 |
| 4-Chlorophenyl | 110 | 5/5 | |
| phenyl ether | ND | mg/kg | 0.76 |
| Chrysene | ND | mg/kg | 0.76 |
| Di-n-butyl phthalate | ND | mg/kg | 0.76 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.76 |
| Dibenzofuran | ND | mg/kg | 0.76 |
| 1,2-Dichlorobenzene | ND | mg/kg | 0.76 |
| 1,3-Dichlorobenzene | ND | mg/kg | 0.76 |
| 1,4-Dichlorobenzene | ND | mg/kg | 0.76 |
| 3,3'-Dichlorobenzidine | ND | mg/kg | 1.4 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.36 |
| Diethyl phthalate | ND | mg/kg | 0.76 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.36 |
| Dimethyl phthalate | ND | mg/kg | 0.76 |
| 4,6-Dinitro- | | | |
| 2-methylphenol | ND | mg/kg | 3.6 |
| 2,4-Dinitrophenol | ND | mg/kg | 3.6 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.76 |
| 2,6-Dinitrotoluene | ND | mg/kg | 0.76 |
| Di-n-octyl phthalate | ND | mg/kg | 0.76 |

(continued on following page)

ND = Not detected NA = Not applicable

Approved By: Steve Rogers Reported By: Chris Jenkins



Method 8270

Client Name: Gram, Inc.

Client ID: 01790001 (0.00,3.00,)

Lab ID:

077682-0002-SA

Matrix: SOIL Authorized: 14 SEP 94 Sampled: 07 SEP 94 Prepared: 21 SEP 94 Received: 14 SEP 94 Analyzed: 28 SEP 94

Dry Weight Reporting Units Limit Result Parameter bis(2-Ethylhexyl)-0.76 ND mg/kg phthalate mg/kg 0.76 ND Fluoranthene mg/kg 0.76 ND Fluorene mg/kg 0.76 ND Hexachlorobenzene 0.76 mg/kg ND Hexachlorobutadiene 0.76 ND mg/kg **Hexachlorocyclopentadiene** ND mg/kg 0.76 Hexachloroethane ND mg/kg 0.76 Indeno(1,2,3-cd)pyrene ND mg/kg 0.76 Isophorone ND mg/kg 0.76 2-Methylnaphthalene ND mg/kg 0.36 2-Methylphenol ND mg/kg 0.36 4-Methylphenol 0.76 ND mg/kg Naphthalene 3.6 mg/kg 2-Nitroaniline ND 3.6 mg/kg ND 3-Nitroaniline 3.6 ND mg/kg 4-Nitroaniline 0.76 ND mg/kg Nitrobenzene 0.36 ND mg/kg 2-Nitrophenol 1.7 ND mq/kq 4-Nitrophenol 0.76 ND mg/kg N-Nitrosodiphenylamine N-Nitroso-di-0.76 ND mg/kg n-propylamine mg/kg 3.6 ND Pentachlorophenol mg/kg 0.76 ND Phenanthrene 0.36 ND mq/kq Pheno1 mg/kg 0.76 ND Pyrene 0.76 ND mg/kg 1,2,4-Trichlorobenzene mg/kg 3.6 ND 2.4.5-Trichlorophenol ND mg/kg 0.36 2,4,6-Trichlorophenol Recovery Surrogate % 83 Nitrobenzene-d5 82 2-Fluorobiphenyl % 98 Terphenyl-d14 88 Phenol-d5 85 2-Fluorophenol 97 2.4.6-Tribromophenol

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers



Method 8270

Client Name: Gram, Inc. Client ID: 00970001 (3.00,6.00,)

Lab ID:

077682-0006-SA

Matrix: SOIL Authorized: 14 SEP 94 Sampled: 09 SEP 94 Prepared: 21 SEP 94

Received: 14 SEP 94 Analyzed: 28 SEP 94

| | Result | Dry Weight Units | Reporting Limit |
|--|--|--|--|
| Parameter | Kesuit | 011112 | Limit |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitrobenzene 2-Nitrophenol 4-Nitrophenol | | mg/kg mg/kkg mg/kkg mg/kkg mg/kkkg mg/kkkg mg/kk mg/kk mg/kg | 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.38 0.38 |
| N-Nitrosodiphenylamine N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.80 3.8 0.80 0.38 0.80 0.80 3.8 0.38 |
| Surrogate | Recovery | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 82 83 91 87 85 92 | % % % % | |

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Rev 230787

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Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc. Client ID: 00970001 (3.00,6.00,)

077682-0006-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 Matrix: SOIL Prepared: NA Authorized: 14 SEP 94

| Unknown oxygenated compound Unknown lactone Unknown ketone Unknown ketone Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-! Unknown Unknown 270 Unknown Result Units Limit 470 ug/kg 2400 ug/kg 180 ug/kg 230 ug/kg 210 ug/kg |
|---|
| Unknown oxygenated compound 58000 ug/kg Unknown oxygenated compound 1200 ug/kg Unknown oxygenated compound 1200 ug/kg Unknown lactone 180 ug/kg Unknown ketone 230 ug/kg Propanoic acid, 2-methyl-,l-(1,l- dimethylethyl)-! 210 ug/kg Unknown ug/kg Unknown ketone 230 ug/kg Unknown ketone 230 ug/kg Unknown ketone 230 ug/kg Unknown ug/kg |
| Unknown oxygenated compound Unknown oxygenated compound Unknown oxygenated compound Unknown oxygenated compound Unknown lactone Unknown ketone Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-! Unknown 2400 470 ug/kg 210 ug/kg 210 ug/kg 470 ug/kg |
| Unknown oxygenated compound Unknown oxygenated compound Unknown lactone Unknown ketone Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-! Unknown dimethylethyl)-! Unknown 470 Ug/kg 1200 ug/kg 210 ug/kg 470 ug/kg |
| Unknown oxygenated compound Unknown lactone Unknown ketone Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-! Unknown dimethylethyl)-! 210 ug/kg 210 ug/kg 470 ug/kg |
| Unknown lactone Unknown ketone Propanoic acid, 2-methyl-,1-(1,1- dimethylethyl)-! Unknown 230 ug/kg 210 ug/kg 470 ug/kg |
| Unknown ketone 230 ug/kg Propanoic acid, 2-methyl-,1-(1,1- dimethylethyl)-! 210 ug/kg Hoknown 470 ug/kg |
| Propanoic acid, 2-methyl-,l-(1,l-dimethylethyl)-! 210 ug/kg 470 ug/kg |
| dimethylethyl)-! 210 ug/kg 470 ug/kg |
| Unknown 470 ug/kg |
| |
| Ilnknown 980 ug/kg |
| Unknown 190 uq/kg |
| Ilpknown 1/0 ug/kg |
| tlnknown 140 ug/kg |
| TID Compound 13 ND ug/kg |
| TID Compound 14 ND ug/kg |
| TID Compound 15 ND ug/kg |
| TID Compound 16 ND ug/kg |
| TID Compound 17 ND ug/kg |
| TID Compound 18 ND ug/kg |
| TID Compound 19 ND ug/kg |
| TID Compound 20 ND ug/kg |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers



Method 8270

Client Name: Gram, Inc. Client ID: 01930001 (0.00, 3.00,)

Lab ID:

077682-0005-SA

Matrix: SOIL Authorized: 14 SEP 94 Sampled: 08 SEP 94 Prepared: NA

Received: 14 SEP 94 Analyzed: 28 SEP 94

| Parameter | Result | Units | Reporting Limit |
|-----------------------------------|------------|----------------|--------------------|
| Unknown oxygenated compound | 1500 | ug/kg | |
| Unknown oxygenated compound | 50000 | ug/kg | |
| Unknown oxygenated compound | 900 | ug/kg | |
| Unknown lactone | 230 | ug/kg | |
| Unknown ketone | 410 | ug/kg | |
| Unknown oxygenated compound | 170 | ug/kg | |
| Unknown oxygenated compound | 140 | ug/kg | |
| Propanoic acid, 2-methyl-,l-(1,l- | | 41 | |
| dimethylethyl)-! | 190 | ug/kg | |
| Unknown | 330 | ug/kg | |
| Unknown | 150 | ug/kg | |
| Unknown | 140 | ug/kg | |
| Unknown | 430 | ug/kg | |
| Unknown | 330 | ug/kg | |
| Ergost-5-en-3-ol, (3.beta.)- | 310 | ug/kg ug/kg | |
| Unknown | 280 470 | ug/kg ug/kg | |
| Unknown | 210 | ug/kg | |
| Unknown | ND | ug/kg ug/kg | |
| TID Compound 18 | ND | ug/kg | |
| TID Compound 19 | | ug/kg | |
| TID Compound 20 | ND | ug/kg | |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report. Rev 230787

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Method 8270

Client Name: Gram, Inc. Client ID: 00970001 (3.00,6.00,)

077682-0006-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 Prepared: 21 SEP 94 Matrix: **JI02** Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|----------|---------------------|--------------------|
| Acenaphthene | ND | mg/kg | 0.80 |
| Acenaphthylene | ND | mg/kg | 0.80 |
| Anthracene | ND | mg/kg | 0.80 |
| Benzo(a)anthracene | ND | mg/kg | 0.80 0.80 |
| Benzo(a)pyrene | ND | mg/kg | 0.80 |
| Benzo(b)fluoranthene | ND | mg/kg | 0.80 |
| Benzo(g,h,i)perylene | ND | mg/kg | 0.80 |
| Benzo(k)fluoranthene | ND ND | mg/kg mg/kg | 1.8 |
| Benzoic acid | ND | mg/kg | 1.5 |
| Benzyl alcohol | NU | mg/ kg | 1.0 |
| 4-Bromophenyl | ND | mg/kg | 0.80 |
| phenyl ether | ND | mg/kg | 0.80 |
| Butyl benzyl phthalate | ND | mg/kg | 1.5 |
| 4-Chloroaniline bis(2-Chloroethoxy)- | 110 | 9/9 | |
| methane | ND | mg/kg | 0.80 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.80 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.80 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.5 |
| 2-Chloronaphthalene | ND | mg/kg | 0.80 |
| 2-Chlorophenol | ND | mg/kg | 0.38 |
| 4-Chlorophenyl | | 41 | 0.00 |
| phenyl ether | ND | mg/kg | 0.80 |
| Chrysene | ND | mg/kg | 0.80 0.80 |
| Di-n-butyl phthalate | ND | mg/kg | 0.80 |
| Dibenz(a,h)anthracene | ND ND | mg/kg | 0.80 |
| Dibenzofuran | ND ND | mg/kg mg/kg | 0.80 |
| 1,2-Dichlorobenzene | ND | mg/kg | 0.80 |
| 1,3-Dichlorobenzene | ND | mg/kg | 0.80 |
| 1,4-Dichlorobenzene 3,3'-Dichlorobenzidine | ND | mg/kg | 1.5 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.38 |
| Diethyl phthalate | ND | mg/kg | 0.80 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.38 |
| Dimethyl phthalate | ND | mg/kg | 0.80 |
| 4,6-Dinitro- | ••- | 44 | |
| 2-methylphenol | ND | mg/kg | 3.8 |
| 2,4-Dinitrophenol | ND | mg/kg | 3.8 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.80 |
| 2.6-Dinitrotoluene | ND | mg/kg | 0.80 0.80 |
| Di-n-octyl phthalate | ND | mg/kg | 0.60 |

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

Method 8270

Client Name: Gram, Inc. Client ID: 02660001 (2.00, 3.00,)

077682-0008-SA Lab ID:

Sampled: 09 SEP 94 Prepared: 21 SEP 94 Received: 14 SEP 94 Matrix: SOIL Analyzed: 28 SEP 94 Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|---|----------|---------------------|--------------------|
| Acenaphthene | ND | mg/kg | 0.77 |
| Acenaphthylene | ND | mg/kg | 0.77 |
| Anthracene | ND | mg/kg | 0.77 |
| Benzo(a)anthracene | ND | mg/kg | 0.77 |
| Benzo(a)pyrene | ND | mg/kg | 0.77 |
| Benzo(b)fluoranthene | ND | mg/kg | 0.77 |
| Benzo(g,h,i)perylene | ND | mg/kg | 0.77 |
| Benzo(k)fluoranthene | ND | mg/kg | 0.77 |
| Benzoic acid | ND | mg/kg | 1.8 1.4 |
| Benzyl alcohol | ND | mg/kg | 1.4 |
| 4-Bromophenyl | ND | mg/kg | 0.77 |
| phenyl ether | ND | mg/kg | 0.77 |
| Butyl benzyl phthalate 4-Chloroaniline | ND | mg/kg | 1.4 |
| bis(2-Chloroethoxy)- | N.D | | |
| methane | ND | mg/kg | 0.77 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.77 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.77 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.4 |
| 2-Chloronaphthalene | ND | mg/kg | 0.77 |
| 2-Chlorophenol | ND | mg/kg | 0.36 |
| 4-Chlorophenyl | | | |
| phenyl ether | ND | mg/kg | 0.77 |
| Chrysene | ND | mg/kg | 0.77 |
| Di-n-butyl phthalate | ND | mg/kg | 0.77 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.77 0.77 |
| Dibenzofuran | ND ND | mg/kg | 0.77 |
| 1,2-Dichlorobenzene | ND | mg/kg mg/kg | 0.77 |
| 1,3-Dichlorobenzene | ND | mg/kg | 0.77 |
| 1,4-Dichlorobenzene | ND | mg/kg | 1.4 |
| 3,3'-Dichlorobenzidine 2,4-Dichlorophenol | ND | mg/kg | 0.36 |
| Diethyl phthalate | 0.80 | mg/kg | 0.77 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.36 |
| Dimethyl phthalate | ND | mg/kg | 0.77 |
| 4,6-Dinitro- | | | |
| 2-methylphenol | ND | mg/kg | 3.6 |
| 2,4-Dinitrophenol | ND | mg/kg | 3.6 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.77 |
| 2,6-Dinitrotoluene | ND | mg/kg | 0.77 0.77 |
| Di-n-octyl phthalate | ND | mg/kg | 0.77 |

(continued on following page)

ND = Not detected NA = Not applicable

Approved By: Steve Rogers Reported By: Chris Jenkins

> The cover letter is an integral part of this report. Rev 230787

> > 1 349



Method 8270

Client Name: Gram, Inc.

Client ID: 02660001 (2.00,3.00,)

Lab ID: 077682-0008-SA

Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

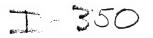
| Parameter | Result | Dry Weight Units | Reporting Limit |
|---|--|---|--|
| a di dilicoci | | | |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline | | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0.77 |
| Nitrobenzene 2-Nitrophenol | ND ND | mg/kg | 0.36 |
| 4-Nitrophenol | ND ND | mg/kg mg/kg | 1.8 0.77 |
| N-Nitrosodiphenylamine N-Nitroso-di- | | | |
| n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.77 3.6 0.77 0.36 0.77 0.77 3.6 0.36 |
| Surrogate | Recovery | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 83 97 88 87 103 | % % % % | |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers



Semivolatiles Library Search (20 Compound TID)



Method 8270

(2.00,3.00,)

Client Name: Gram, Inc. Client ID: 02660001 Lab ID: 077682-000 077682-0008-SA

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 SOIL Matrix: Authorized: 14 SEP 94 Prepared: NA

| | | | Reporting |
|-----------------------------|--------|-------|-----------|
| Parameter | Result | Units | Limit |
| Unknown oxygenated compound | 220000 | ug/kg | |
| Unknown oxygenated compound | 2200 | ug/kg | |
| Unknown oxygenated compound | 61000 | ug/kg | |
| Unknown oxygenated compound | 1100 | ug/kg | |
| Unknown lactone | 1300 | ug/kg | |
| Unknown ketone | 1000 | ug/kg | |
| Unknown oxygenated compound | 700 | ug/kg | |
| Unknown oxygenated compound | 190 | ug/kg | |
| Unknown oxygenated compound | 880 | ug/kg | |
| Unknown | 470 | ug/kg | |
| Unknown | 510 | ug/kg | |
| Unknown | 140 | ug/kg | |
| Unknown | 230 | ug/kg | |
| Unknown | 180 | ug/kg | |
| TID Compound 15 | ND | ug/kg | |
| TID Compound 16 | ND | ug/kg | |
| TID Compound 17 | ND | ug/kg | |
| TID Compound 18 | ND | ug/kg | • • |
| TID Compound 19 | ND | ug/kg | |
| | ND | ug/kg | |
| TID Compound 20 | ND | 43/19 | |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report. Rev 230787

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Method 8270

Client Name: Gram, Inc. Client ID: 02960001 (2.50,4.00,)

077682-0009-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 Prepared: 21 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|----------|---------------------|--------------------|
| Acenaphthene | ND | mg/kg | 0.72 0.72 |
| Acenaphthylene | ND ND | mg/kg mg/kg | 0.72 |
| Anthracene Renze (a) anthracene | ND | mg/kg | 0.72 |
| Benzo(a)anthracene Benzo(a)pyrene | ND | mg/kg | 0.72 |
| Benzo(b)fluoranthene | ND | mg/kg | 0.72 |
| Benzo(g, h, i)perylene | ND | mg/kg | 0.72 |
| Benzo(k)fluoranthene | ND | mg/kg | 0.72 |
| Benzoic acid | ND | mg/kg | 1.7 |
| Benzyl alcohol | ND | mg/kg | 1.3 |
| 4-Bromophenyl | ND | ma/ka | 0.72 |
| phenyl ether | ND ND | mg/kg mg/kg | 0.72 |
| Butyl benzyl phthalate | ND | mg/kg | 1.3 |
| 4-Chloroaniline | NU | mg/ kg | 1.0 |
| bis(2-Chloroethoxy)- methane | ND | mg/kg | 0.72 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.72 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.72 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.3 |
| 2-Chloronaphthalene | ND | mg/kg | 0.72 |
| 2-Chlorophenol | ND | mg/kg | 0.34 |
| 4-Chlorophenyl | | 41 | 0.70 |
| phenyl ether | ND | mg/kg | 0.72 0.72 |
| Chrysene | ND | mg/kg | 0.72 |
| Di-n-butyl phthalate | ND ND | mg/kg mg/kg | 0.72 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.72 |
| Dibenzofuran | ND | mg/kg | 0.72 |
| 1,2-Dichlorobenzene 1,3-Dichlorobenzene | ND | mg/kg | 0.72 |
| 1,4-Dichlorobenzene | ND | mg/kg | 0.72 |
| 3,3'-Dichlorobenzidine | ND | mg/kg | 1.3 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.34 |
| Diethyl phthalate | ND | mg/kg | 0.72 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.34 |
| Dimethyl phthalate | ND | mg/kg | 0.72 |
| 4,6-Dinitro- | MD | ma/ka | 2 / |
| 2-methylphenol | ND ND | mg/kg mg/kg | 3.4 3.4 |
| 2,4-Dinitrophenol | ND | mg/kg | 0.72 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.72 |
| 2,6-Dinitrotoluene | ND | mg/kg | 0.72 |
| Di-n-octyl phthalate | 110 | ביי /בייי | |

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ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

wuanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 03140001 (0.00, 0.00,)

Lab ID:

077682-0012-SA AQUEOUS Received: 14 SEP 94 Analyzed: 30 SEP 94 Sampled: 13 SEP 94 Prepared: 20 SEP 94 Matrix: Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit |
|---|----------|--------------|--------------------|
| Acenaphthene | ND | ug/L | 10 |
| Acenaphthylene | ND | ug/L | 10 |
| Anthracene | ND | ug/L | 10 |
| Benzo(a)anthracene | ND | ug/L | 10 10 |
| Benzo(a)pyrene | ND ND | ug/L ug/L | 10 |
| Benzo(b)fluoranthene | ND ND | ug/L ug/L | 10 |
| 2,2'-Oxybis(1-chloropropane) Benzo(g,h,i)perylene | ND | ug/L | iŏ |
| Benzo(k)fluoranthene | ND | ug/L | 10 |
| Benzoic acid | ND | ug/L | 50 |
| Benzyl alcohol | ND | ug/L | 20 |
| 4-Bromophenyl | | 4. | |
| phenyl ether | ND | ug/L | 10 |
| Butyl benzyl phthalate | ND | ug/L | 10 |
| bis(2-Chloroethoxy)- | ND | ua /1 | 10 |
| methane | ND ND | ug/L | 10 |
| bis(2-Chloroethyl) ether | ND | ug/L ug/L | 20 |
| 4-Chloro-3-methylphenol | ND | ug/L ug/L | 10 |
| 2-Chloronaphthalene | ND | ug/L | 10 |
| 2-Chlorophenol 4-Chlorophenyl | ND | ug/ L | |
| phenyl ether | ND | ug/L | 10 |
| 4-Chloroaniline | ND | ug/L | 20 |
| Chrysene | ND | ug/L | 10 |
| Di-n-butyl phthalate | ND | ug/L | 10 |
| Dibenz(a,h)anthracene | ND | ug/L | 10 |
| Dibenzòfuran | ND | ug/L | 10 |
| 1,2-Dichlorobenzene | ND | ug/L | 10 . |
| 1,3-Dichlorobenzene | ND | ug/L | 10 |
| 1,4-Dichlorobenzene | ND | ug/L | 10 20 |
| 3,3'-Dichlorobenzidine | ND ND | ug/L ug/L | 10 |
| 2,4-Dichlorophenol | ND | ug/L | 10 |
| Diethyl phthalate 2,4-Dimethylphenol | ND | ug/L | 10 |
| Dimethyl phthalate | ND | ug/L | 10 |
| 4,6-Dinitro- | | 51 | |
| 2-methylphenol | ND | ug/L | 50 |
| 2,4-Dinitrophenol | ND | ug/L | 50 |
| 2,4-Dinitrotoluene | ND | ug/L | 10 |
| 2,6-Dinitrotoluene | ND | ug/L | 10 |
| Di-n-octyl phthalate | ND | ug/L | 10 |

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ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

WuanterraEnvironmental

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.

Client ID: 03140001 (0.00,0.00,)

Lab ID:

077682-0012-SA

Matrix: AQUEOUS Authorized: 14 SEP 94 Sampled: 13 SEP 94 Prepared: 20 SEP 94 Received: 14 SEP 94 Analyzed: 30 SEP 94

| | | | Reporting | |
|--|--|--|--|---|
| Parameter | Result | Units | Limit | |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline | ND ND ND ND ND ND ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 10 10 10 10 10 10 10 10 10 10 10 10 | |
| 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodiphenylamine N-Nitroso-di- | ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L | 50 10 10 50 10 | |
| n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | 3.4 ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L | 50 10 10 10 10 10 50 | J |
| Surrogate | Recovery | | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 85 78 33 31 51 60 | % % % % % | | |

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Rev 230787

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Method 8270

Client Name: Gram, Inc. Client ID: 02960001 (2.50, 4.00,)

077682-0009-SA Lab ID:

Received: 14 SEP 94 Analyzed: 28 SEP 94 Sampled: 09 SEP 94 Prepared: 21 SEP 94 SOIL Matrix: Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|--|---|--|
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol N-Nitrosodiphenylamine | | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kkg | 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72 |
| N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.72 3.4 0.72 0.34 0.72 0.72 3.4 0.34 |
| Surrogate | Recovery | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 95 93 113 102 96 123 | % % % % | |

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ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report. Rev 230787

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Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc. Client ID: 02960001 Lab ID: 077682-0009-SA (2.50,4.00,)

Sampled: 09 SEP 94 Prepared: NA Received: 14 SEP 94 Analyzed: 28 SEP 94 Matrix: SOIL Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit |
|-----------------------------------|--------|-------|--------------------|
| Unknown oxygenated compound | 1700 | ug/kg | |
| Unknown oxygenated compound | 52000 | ug/kg | |
| Unknown oxygenated compound | 890 | ug/kg | |
| Unknown lactone | 530 | ug/kg | |
| Unknown ketone | 1100 | ug/kg | |
| Unknown oxygenated compound | 530 | ug/kg | |
| Unknown oxygenated compound | 320 | ug/kg | |
| Unknown | 240 | ug/kg | |
| Unknown | 770 | ug/kg | |
| Unknown | 1100 | ug/kg | |
| Propanoic acid, 2-methyl-,1-(1,1- | | | |
| dimethylethyl)-! | 250 | ug/kg | |
| Unknown | 230 | ug/kg | |
| Unknown | 230 | ug/kg | |
| Unknown | 530 | ug/kg | |
| Unknown | 360 | ug/kg | |
| Unknown | 470 | ug/kg | |
| Unknown | 830 | ug/kg | |
| Unknown | 230 | ug/kg | |
| Unknown | 360 | ug/kg | |
| Unknown | 230 | ug/kg | |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report. Rev 230787

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Method 8270

Client Name: Gram, Inc. Client ID: 03140001 (0.00,0.00,)

077682-0012-SA Lab ID:

Received: 14 SEP 94 Analyzed: 30 SEP 94 Sampled: 13 SEP 94 Prepared: 20 SEP 94 AQUEOUS Matrix: Authorized: 14 SEP 94

Note J: Result is detected below the reporting limit or is an estimated concentration.

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers





Semivolatiles Library Search (20 Compound ID)

Method 8270

Client Name: Gram, Inc. Client ID: 03140001 (0.00, 0.00,)

077682-0012-SA Lab ID:

Received: 14 SEP 94 Analyzed: 30 SEP 94 AQUEOUS Sampled: 13 SEP 94 Matrix: Authorized: 14 SEP 94 Prepared: NA

| | | | Reporting |
|--|--------|-------|-----------|
| Parameter | Result | Units | Limit |
| TID Compound 1 | ND | ug/L | |
| TID Compound 2 | ND | ug/L | |
| TID Compound 2 TID Compound 3 | ND | ug/L | |
| | ND | ug/L | |
| TID Compound 5 | ND | ug/L | |
| TID Compound 6 | ND | ug/L | |
| TID Compound 5 TID Compound 6 TID Compound 7 | - ND | ug/L | |
| TID Compound 8 | ND | ug/L | |
| TID Compound 9 | ND . | ug/L | |
| TID Compound 10 | ND | ug/L | |
| TID Compound 11 | ND | ug/L | |
| TID Compound 12 | ND | ug/L | |
| TID Compound 13 | ND | ug/L | |
| TID Compound 14 | ND | ug/L | |
| TID Compound 15 | ND | ug/L | |
| TID Compound 16 | ND | ug/L | |
| TID Compound 17 | ND | ug/L | |
| | ND | ug/L | |
| | ND | ug/L | |
| | ND | ug/L | |
| TID Compound 20 | ND | 49/ 6 | |

ND = Not detected NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers



QC LOT ASSIGNMENT REPORT Semivolatile Organics by GC/MS

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|---|--|---|---|
| 077682-0002-SA 077682-0003-SA 077682-0005-SA 077682-0006-SA 077682-0008-SA 077682-0009-SA 077682-0012-SA | SOIL SOIL SOIL SOIL SOIL AQUEOUS | 8270-IRPSL 8270-IRPSL 8270-IRPSL 8270-IRPSL 8270-IRPSL 8270-IRPSL 8270-IRP-A | 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 20 SEP 94-11A | 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 21 SEP 94-11A 20 SEP 94-11A |

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METHOD BLANK REPORT Semivolatile Organics by GC/MS

| 1.2.4. | Result | Units | Reporting Limit |
|---|---------------|----------------|--------------------|
| Analyte | Result | 011165 | Limit |
| | | | |
| Test: 8270-IRPMS-L-S Matrix: SOIL | | | |
| Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: | 21 SFP 94-11A | | |
| de for. El or. o. iii. de man. | | | |
| Acenaphthene | ND | mg/kg | 0.70 |
| Acenaphthylene | ND | mg/kg | 0.70 0.70 |
| Anthracene | ND ND | mg/kg | 0.70 |
| Benzo(a)anthracene | ND ND | mg/kg mg/kg | 0.70 |
| Benzo(a)pyrene | ND | mg/kg | 0.70 |
| Benzo(b)fluoranthene | - ND | mg/kg | 0.70 |
| Benzo(g,h,i)perylene | ND | mg/kg | 0.70 |
| Benzo(k)fluoranthene | ND | mg/kg | 1.6 |
| Benzoic acid | ND | mg/kg | 1.3 |
| Benzyl alcohol | ND | פיי /פייי | |
| 4-Bromophenyl phenyl ether | ND | mg/kg | 0.70 |
| Butyl benzyl phthalate | ND | mg/kg | 0.70 |
| 4-Chloroaniline | ND | mg/kg | 1.3 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.70 |
| bis(2-Chloroethoxy)- | | 3, 3 | |
| methane | ND | mg/kg | 0.70 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.70 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.3 |
| 2-Chloronaphthalene | ND | mg/kg | 0.70 |
| 2-Chlorophenol | ND | mg/kg | 0.33 |
| 4-Chlorophenyl | AUD. | | 0.70 |
| phenyl ether | ND | mg/kg | 0.70 0.70 |
| Chrysene | ND ND | mg/kg mg/kg | 0.70 |
| Di-n-butyl phthalate | ND ND | mg/kg | 0.70 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.70 |
| Dibenzofuran 1,2-Dichlorobenzene | ND | mg/kg | 0.70 |
| 1,3-Dichlorobenzene | ND | mg/kg | 0.70 |
| 1,4-Dichlorobenzene | ND | mg/kg | 0.70 |
| 3,3'-Dichlorobenzidine | ND | mg/kg | 1.3 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.33 |
| Diethyl phthalate | ND | mg/kg | 0.70 |
| 2,4-Dimethylphenol | ND | mg/kg | 0.33 |
| Dimethyl phthalate | ND | mg/kg | 0.70 |
| 4,6-Dinitro- | | 41 | |
| 2-methylphenol | ND | mg/kg | 3.3 |
| 2,4-Dinitrophenol | ND | mg/kg | 3.3 |
| 2,4-Dinitrotoluene | ND | mg/kg | 0.70 |
| 2,6-Dinitrotoluene | ND | mg/kg | 0.70 |
| Di-n-octyl phthalate | ND | mg/kg | 0.70 |



METHOD BLANK REPORT Semivolatile Organics by GC/MS (cont.)

| Analyte | Result | Units | Reporting Limit |
|--|--|---|--|
| Test: 8270-IRPMS-L-S Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: | 21 SEP 94-11A | | |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitrobenzene 2-Nitrophenol 4-Nitrosodiphenylamine N-Nitroso-di- n-propylamine Pentachlorophenol | | mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.70 |
| Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol Test: 8270-IRPMS-A Matrix: AQUEOUS QC Lot: 20 SEP 94-11A QC Run: | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.70 0.33 0.70 0.70 3.3 0.33 |
| Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene | ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L | 10 10 10 10 |



METHOD BLANK REPORT Semivolatile Organics by GC/MS (cont.)

| Analyte | Result | Units | Reporting Limit |
|--|---------------|--------------|--------------------|
| Analyte | nesare | 2 | |
| Test: 8270-IRPMS-A | | | |
| Matrix: AQUEOUS | 20 CED 04 114 | | |
| QC Lot: 20 SEP 94-11A QC Run: | 20 SEP 94-11A | | |
| Benzo(b)fluoranthene | ND | ug/L | 10 |
| 2,2'-Oxybis(1-chloropropane) | ND | ug/L | 10 10 |
| Benzo(g,h,i)perylene | ND ND | ug/L ug/L | 10 |
| Benzo(k)fluoranthene | ND ND | ug/L | 50 |
| Benzoic acid | ND | ug/L | 20 |
| Benzyl alcohol 4-Bromophenyl | , no | 49/ - | |
| phenyl ether | ND | ug/L | 10 |
| Butyl benzyl phthalate | ND | ug/L | 10 |
| bis(2-Chloroethoxy)- | 2 | 3/ | |
| methane | ND | ug/L | 10 |
| bis(2-Chloroethyl) ether | ND | ug/L | 10 |
| 4-Chloro-3-methylphenol | ND | ug/L | 20 |
| 2-Chloronaphthalene | ND | ug/L | 10 |
| 2-Chlorophenol | ND | ug/L | 10 |
| 4-Chloroaniline | ND | ug/L | 20 |
| 4-Chlorophenyl | ND | | 10 |
| phenyl ether | ND | ug/L | 10 10 |
| Chrysene | ND | ug/L | 10 |
| Di-n-butyl phthalate | ND ND | ug/L | 10 |
| Dibenz(a,h)anthracene | ND ND | ug/L ug/L | 10 |
| Dibenzofuran | ND | ug/L | 10 |
| 1,2-Dichlorobenzene 1,3-Dichlorobenzene | ND | ug/L | 10 |
| 1,4-Dichlorobenzene | ND | ug/L | 10 |
| 3,3'-Dichlorobenzidine | ND | ug/L | 20 |
| 2,4-Dichlorophenol | ND | ug/L | 10 |
| Diethyl phthalate | ND | ug/L | · 10 |
| 2,4-Dimethylphenol | ND | ug/L | 10 |
| Dimethyl phthalate | ND | ug/L | 10 |
| 4,6-Dinitro- | ND | ua/l | 50 |
| 2-methylphenol | ND | ug/L | 50 |
| 2,4-Dinitrophenol | ND ND | ug/L ug/L | 10 |
| 2,4-Dinitrotoluene | ND | ug/L | 10 |
| 2,6-Dinitrotoluene Di-n-octyl phthalate | ND | ug/L | 10 |
| bis(2-Ethylhexyl)- | No | -5/ - | |
| phthalate | ND | ug/L | 10 |
| Fluoranthene | ND | ug/L | 10 |
| Fluorene | ND | ug/L | 10 |
| Hexachlorobenzene | ND | ug/L | 10 |
| | | | |



METHOD BLANK REPORT Semivolatile Organics by GC/MS (cont.)

| Analyte | Result | Units | Reporting Limit |
|---|--|--|--|
| Test: 8270-IRPMS-A Matrix: AQUEOUS QC Lot: 20 SEP 94-11A QC Run: 2 | 20 SEP 94-11A | | |
| Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodiphenylamine | ND ND ND ND ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 10 10 10 10 10 10 10 50 50 50 10 |
| N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND | ug/L ug/L ug/L ug/L ug/L ug/L ug/L | 10 50 10 10 10 10 50 |



LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

Project: 077682

Category: 8270-IRP-A Semivolatile Organics (Contain all compounds for IRPMS)

Matrix:

AQUEOUS 20 SEP 94-11A QC Run: 20 SEP 94-11A

QC Lot: Concentration Units: ug/L

| A = a T volta | Concentr | ration Measured | Accur LCS | acy(%) Limits |
|--|------------|--------------------|--------------|------------------|
| Analyte | Spiked | ricusur cu | | |
| Pheno1 | 200 | 80.2 | 40 | 22-51 |
| bis(2-Chloroethyl) ether | 100 | 101 | 101 | 35-110 |
| 2-Chlorophenol | 200 | 171 | 86 | 44-112 |
| 1,3-Dichlorobenzene | 100 | 89.5 | 90 | 6-86 |
| 1,4-Dichlorobenzene | 100 | 93.7 | 94 | 11-87 |
| Benzyl alcohol | 100 | 84.6 | 85 | 36-101 |
| 1,2-Dichlorobenzene | 100 | 94.4 | 94 | 14-90 |
| 2-Methylphenol | 200 | 161 | 80 | 40-117 |
| 2,2'-0xybis(1- | | | 101 | 22 112 |
| chloropropane) | 100 | 101 | 101 | 33-113 |
| 4-Methylphenol | 200 | 157 | 78 | 36-109 |
| N-Nitroso-di- | | 02.0 | 94 | 37-114 |
| n-propylamine | 100 | 93.9 | 96 | 0-84 |
| Hexachloroethane | 100 | 96.5 | 108 | 32-114 |
| Nitrobenzene | 100 | 108 82.5 | 82 | 40-119 |
| Isophorone | 100 200 | 171 | 86 | 40-130 |
| 2-Nitrophenol | 200 | 161 | 80 | 44-122 |
| 2,4-Dimethylphenol | 200 | ND | NČ | 0-72 |
| Benzoic acid | 200 | NU | 110 | 0 , _ |
| bis(2-Chloroethoxy)- | 100 | 101 | 101 | 36-118 |
| methane | 200 | 158 | 79 | 40-125 |
| 2,4-Dichlorophenol | 100 | 82.1 | 82 | 10-98 |
| 1,2,4-Trichlorobenzene | 100 | 86.6 | 87 | 28-105 |
| Naphthalene | 100 | 45.5 | 46 | .40-114 |
| 4-Chloroaniline Hexachlorobutadiene | 100 | 68.3 | 68 | 0-94 |
| 4-Chloro-3-methylphenol | 200 | 177 | 88 | 22-147 |
| 2-Methylnaphthalene | 100 | 76.1 | 76 | 22-119 |
| Hexachlorocyclopentadiene | 100 | 50.1 | 50 | 0-93 |
| 2,4,6-Trichlorophenol | 200 | 134 | 67 | 44-127 |
| 2,4,5-Trichlorophenol | 200 | 121 | 60 | 46-132 |
| 2-Chloronaphthalene | 100 | 82.3 | 82 | 25-120 |
| 2-Nitroaniline | 100 | 120 | 120 | 19-68 |
| Dimethyl phthalate | 100 | 89.7 | 90 | 0-88 |
| Acenaphthylene | 100 | 91.9 | 92 | 31-117 52-120 |
| 2,6-Dinitrotoluene | 100 | 106 | 106 | 34-153 |
| 3-Nitroaniline | 100 | 102 | 102 89 | 47-145 |
| Acenaphthene | 100 | 89.1 | 66 | 17-160 |
| 2,4-Dinitrophenol | 200 | 133 | 51 | 16-56 |
| 4-Nitrophenol | 200 | 102 | 31 | 10-20 |
| N = Not Calculated, calculation not ap | pricable. | | | |

N = Not Detected ND = Not Detected



LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS Project: 077682

(cont.)

Category: 8270-IRPSL Semivolatile Organics (Contain all compounds for IRPMS Low soil)

Matrix:

SOIL 21 SEP 94-11A QC Run: 21 SEP 94-11A

QC Lot: Concentration Units: mg/kg

| . | Concentr | ation | Accur | acy(%) |
|---------------------------------------|------------|--------------|-----------|------------------|
| Analyte | Spiked | Measured | LCS | Limits |
| Phenol | 6.70 | 4.95 | 74 | 41-123 |
| bis(2-Chloroethyl) ether | 3.30 | 2.63 | 80 | 43-117 |
| 2-Chlorophenol | 6.70 | 5.00 | 75 | 44-116 |
| 1,3-Dichlorobenzene | 3.30 | 2.62 | 79 70 | 39-106 |
| 1,4-Dichlorobenzene | 3.30 | 2.61 | 79 | 40-106 37-125 |
| Benzyl alcohol | 3.30 | 2.88 | 87 82 | 40-107 |
| 1,2-Dichlorobenzene | 3.30 | 2.69 5.01 | 75 | 44-128 |
| 2-Methylphenol | 6.70 | 5.01 | 73 | 44-120 |
| 2,2'-0xybis(1- | 3.30 | 2.71 | 82 | 38-116 |
| chloropropane) | 6.70 | 5.55 | 83 | 36-138 |
| 4-Methylphenol | 0.70 | 3.33 | | |
| N-Nitroso-di- | 3.30 | 2.92 | 88 | 43-123 |
| n-propylamine | 3.30 | 2.67 | 81 | 39-106 |
| Hexachloroethane | 3.30 | 2.83 | 86 | 35-180 |
| Nitrobenzene | 3.30 | 2.30 | 70 | 20-134 |
| Isophorone | 6.70 | 5.00 | 75 | 40-128 |
| 2-Nitrophenol | 6.70 | 5.01 | 75 | 38-127 |
| 2,4-Dimethylphenol | 6.70 | ND | NC | 1-137 |
| Benzoic acid | 0.70 | ND | 110 | 1 10, |
| bis(2-Chloroethoxy)- | 3.30 | 2.67 | 81 | 40-117 |
| methane | 6.70 | 4.74 | 71 | 34-129 |
| 2,4-Dichlorophenol | 3.30 | 2.54 | 77 | 36-114 |
| 1,2,4-Trichlorobenzene Naphthalene | 3.30 | 2.33 | 71 | 41-108 |
| 4-Chloroaniline | 3.30 | 1.13 | 34 | 0-63 |
| Hexachlorobutadiene | 3.30 | 2.63 | 80 | 33-114 |
| 4-Chloro-3-methylphenol | 6.70 | 5.96 | 89 | 33-143 |
| 2-Methylnaphthalene | 3.30 | 2.44 | 74 | 0-197 |
| Hexachlorocyclopentadiene | 3.30 | 2.30 | 70 | 29-111 |
| 2,4,6-Trichlorophenol | 6.70 | 5.21 | 78 | 41-132 |
| 2,4,5-Trichlorophenol | 6.70 | 5.38 | 80 | 36-129 |
| 2-Chloronaphthalene | 3.30 | 2.61 | 79 | 40-119 45-129 |
| 2-Nitroaniline | 3.30 | 3.26 | 99 | 48-116 |
| Dimethyl phthalate | 3.30 | 2.80 | 85 74 | 43-114 |
| Acenaphthylene | 3.30 | 2.45 | | 44-127 |
| 2,6-Dinitrotoluene | 3.30 | 3.17 | 96 | 0-119 |
| 3-Nitroaniline | 3.30 | 5.93 | 180 73 | 41-113 |
| Acenaphthene | 3.30 | 2.42 | 99 | 0-139 |
| 2,4-Dinitrophenol | 6.70 | 6.60 8.08 | 121 | 41-144 |
| 4-Nitrophenol | 6.70 | 0.00 | 121 | 41-144 |
| N = Not Calculated, calculation not a | ppilcable. | | | |

N = Not Detected ND = Not Detected



(cont.)

LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

Project: 077682

(cont.)

Category: 8270-IRP-A Semivolatile Organics

(Contain all compounds for IRPMS)

AQUEOUS Matrix:

QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A Concentration Units: ug/L

| | Concentr | | Accuracy(%) | |
|--|------------|------------|-------------|------------------|
| Analyte | Spiked | Measured | LCS | Limits (cont.) |
| Dibenzofuran | 100 | 87.8 | 88 | 43-116 |
| 2,4-Dinitrotoluene | 100 | 103 | 103 | 58-121 |
| Diethyl phthalate | 100 | 96.5 | 9 6 | 0-112 |
| 4-Chlorophenyl phenyl ether Fluorene 4-Nitroaniline | 100 | 75.7 | 76 | 45-116 |
| | 100 | 84.8 | 85 | 59-121 |
| | 100 | 93.0 | 93 | 52-134 |
| 4,6-Dinitro- 2-methylphenol N-Nitrosodiphenylamine 4-Bromophenyl | 200 100 | 195 100 | 98 100 | 45-149 23-243 |
| phenyl ether Hexachlorobenzene Pentachlorophenol Phenanthrene | 100 | 72.1 | 72 | 46-127 |
| | 100 | 67.3 | 67 | 54-126 |
| | 200 | 146 | 73 | 44-142 |
| | 100 | 92.1 | 92 | 57-123 |
| Anthracene | 100 | 88.8 | 89 | 59-125 |
| Di-n-butyl phthalate | 100 | 111 | 111 | 53-127 |
| Fluoranthene | 100 | 90.8 | 91 | 57-129 |
| Pyrene | 100 | 95.7 | 96 | 60-130 |
| Butyl benzyl phthalate | 100 | 129 | 129 | 52-125 |
| 3,3'-Dichlorobenzidine | 100 | 106 | 106 | 42-146 |
| Benzo(a)anthracene | 100 | 94.2 | 94 | 59-126 |
| Chrysene | 100 | 94.9 | 95 | 59-127 |
| bis(2-Ethylhexyl)- phthalate Di-n-octyl phthalate Benzo(b)fluoranthene | 100 | 133 | 133 | 57-129 |
| | 100 | 121 | 121 | -50-135 |
| | 100 | 66.9 | 67 | 55-129 |
| Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene | 100 | 74.8 | 75 | 55-134 |
| | 100 | 85.8 | 86 | 55-130 |
| | 100 | 82.6 | 83 | 64-118 |
| | 100 | 89.1 | 89 | 59-121 |
| Benzo(g,h,i)perylene | 100 | 84.7 | 85 | 62-117 |

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

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LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS Project: 077682

(cont.)

Category: 8270-IRPSL Semivolatile Organics (Contain all compounds for IRPMS Low soil)

(cont.)

Matrix:

SOIL 21 SEP 94-11A QC Run: 21 SEP 94-11A QC Lot:

Concentration Units: mg/kg

| | Concent | ration | Accuracy(%) | |
|------------------------|--------------|--------------|-------------|------------------|
| Analyte | | Measured | LCS | Limits (cont.) |
| Dibenzofuran | 3.30 | 2.61 | 79 | 42-116 |
| 2,4-Dinitrotoluene | 3.30 | 3.39 | 103 | 43-129 |
| Diethyl phthalate | 3.30 | 2.91 | 88 | 46-118 |
| Fluorene | 3.30 | 2.59 | 78 | 43-117 |
| 4-Chlorophenyl | | | | |
| phenyl ether | 3.30 | 2.60 | 79 | 41-120 |
| 4-Nitroaniline | 3.30 | 4.65 | 141 | 0-189 |
| 4,6-Dinitro- | | | | |
| 2-methylphenol | 6.70 | 6.87 | 103 | 0-181 |
| N-Nitrosodiphenylamine | 3.30 | 2.79 | 85 | 9-241 |
| 4-Bromophenyl | | | 00 | 41 106 |
| phenyl ether | 3.30 | 2.69 | 82 | 41-126 |
| Hexachlorobenzene | 3.30 | 2.71 | 82 | 40-126 |
| Pentachlorophenol | 6.70 | 6.42 | 96 | 29-137 |
| Phenanthrene | 3.30 | 2.49 | 75 | 54-120 |
| Anthracene | 3.30 | 2.36 | 72 | 46-119 |
| Di-n-butyl phthalate | 3.30 | 2.85 | 86 | 44-130 |
| Fluoranthene | 3.30 | 2.47 | 75 | 44-126 |
| Pyrene | 3.30 | 2.56 | 78 | 52-115 |
| Butyl benzyl phthalate | 3.30 | 3.18 | 96 | 50-131 |
| 3,3'-Dichlorobenzidine | 3.30 | 2.59 | 78 | 7-141 |
| Benzo(a)anthracene | 3.30 | 2.57 | 78 | 48-127 |
| Chrysene | 3.30 | 2.48 | 75 | 49-123 |
| bis(2-Ethylhexyl)- | | | 0.5 | 40 120 |
| phthalate | 3.30 | 2.80 | 85 | 48-130 |
| Di-n-octyl phthalate | 3.30 | 2.58 | 78 | 44-137 |
| Benzo(b)fluoranthene | 3.30 | 2.85 | 86 | 44-136 |
| Benzo(k)fluoranthene | 3.30 | 1.99 | 60 72 | 43-127 46-132 |
| Benzo(a)pyrene | 3.30 | 2.37 | 77 | 47-133 |
| Indeno(1,2,3-cd)pyrene | 3.30 | 2.54 | 73 | 47-133 |
| Dibenz(a,h)anthracene | 3.30 3.30 | 2.42 2.54 | 73 77 | 40-133 |
| Benzo(g,h,i)perylene | 3.30 | 2.34 | 11 | 40-133 |

ND = Not Detected



SINGLE CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

| Analyte | Concent Spiked | ration Measured | Accur SCS | acy(%) Limits |
|---|--|--|--------------------------------------|--|
| Category: 8270-IRPSL Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: Concentration Units: mg/kg | 21 SEP 94-11A | | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 0.33 0.33 0.33 0.67 0.67 | 0.32 0.33 0.39 0.67 0.67 0.66 | 98 100 118 100 100 98 | 38-116 42-120 40-141 32-131 23-184 20-109 |
| Category: 8270-IRP-A Matrix: AQUEOUS QC Lot: 20 SEP 94-11A QC Run: Concentration Units: ug/L | 20 SEP 94-11A | | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 100 100 100 200 200 200 | 81 88 79 72 127 128 | 81 88 79 36 64 64 | 18-105 21-114 45-143 10- 47 19- 85 22-117 |



(Soil/Solid - Total)

Client Name: Gram, Inc.

(0.00, 3.00,)01790002 Client ID:

Lab ID:

077682-0003-SA

SOIL Matrix: 14 SEP 94 Authorized:

Sampled: 07 SEP 94 Prepared: See Below

Received: 14 SEP 94

Analyzed: See Below

| Parameter Res | | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|---|--|--|--|---|
| Aluminum 9099 Antimony NI Arsenic Barium 10 Beryllium NI Cadmium 270 Chromium NI Cobalt NI Copper 1ron 858 Lead 275 Manganese 12 Mercury NI Molybdenum NI Nickel NI Potassium 170 Selenium NI Silver NI Sodium NI Thallium NI Vanadium 1 | mg/kg | 54.1 16.2 0.50 10.8 1.1 0.54 108 5.4 5.4 5.4 1.0 108 2.2 0.10 10.8 16.2 541 0.50 5.4 51.4 0.50 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc.

(0.00, 3.00,)01800001 Client ID:

077682-0004-SA Lab ID:

Received: 14 SEP 94 Sampled: 07 SEP 94 Matrix: SOIL Analyzed: See Below Prepared: See Below Authorized: 14 SEP 94

| Auction 1200. | • (| • | | | | |
|---|--|---|--|--|--|--|
| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared A Date | Nnalyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 8740 ND 2.9 98.7 ND ND 39800 6.7 ND ND 7220 4.1 2460 77.5 ND ND ND ND ND ND 1250 0.51 ND ND ND ND | mg/kggmg/kkkggmg/kkkkgg/kkkkkkkkkkkkkkk | 53.3 16.0 0.50 10.7 1.1 0.53 107 5.3 5.3 5.3 1.0 107 2.1 0.10 10.7 16.0 533 0.50 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 6010 | 22 SEP 94 2 22 SEP 94 2 | 28 SEP 94 28 SEP 94 |
| | | | | | | |

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note B: Compound is also detected in the blank.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc.

(0.00, 3.00,)01780001 Client ID:

Lab ID:

077682-0001-SA

Matrix:

Received: 14 SEP 94

Sampled: 07 SEP 94 Prepared: See Below SOIL Analyzed: See Below Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|---|---|---|--|--|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 7500 ND 3.3 130 ND ND 69000 6.3 ND ND 6590 4.7 2950 81.9 ND ND ND ND ND ND ND ND ND 1000 0.70 ND ND ND | mg/kgg/kgg/kgg/kkgg/kkgg/kkgg/kkgg/kkgg | 55.1 16.5 0.50 11.0 1.1 0.55 110 5.5 5.5 5.5 1.0 110 2.2 0.10 11.0 16.5 551 0.50 5.5 5.5 | 6010 6010 7060 6010 6010 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note B: Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc.

Client ID: 01790001

Lab ID:

077682-0002-SA

SOIL Matrix: Authorized: 14 SEP 94

Sampled: 07 SEP 94 Prepared: See Below

(0.00, 3.00,)

Received: 14 SEP 94

Analyzed: See Below

| Authorizea: | 14 SEP 34 | i i chai cai | | | |
|---|--|---|--|---|---|
| Parameter | Result | Dry Weight Reporting Units Limit | Analytical Method | Prepared Date | Analyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 10700 ND 2.5 113 ND ND 31000 8.6 ND 6.4 9300 6.3 3030 134 ND ND ND ND ND ND ND ND ND ND | mg/kg 54.6 mg/kg 16.4 mg/kg 0.50 mg/kg 10.9 mg/kg 1.1 mg/kg 0.55 mg/kg 5.5 mg/kg 5.5 mg/kg 5.5 mg/kg 1.0 mg/kg 5.5 mg/kg 5.5 mg/kg 5.5 mg/kg 1.0 mg/kg 10.9 mg/kg 10.9 mg/kg 10.9 mg/kg 5.5 mg/kg 0.50 mg/kg 5.5 mg/kg 10.9 mg/kg 10.9 mg/kg 10.9 mg/kg 10.9 mg/kg 10.9 mg/kg 2.2 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40%

and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 01090001 (3.00,6.00,)

077682-0007-SA Lab ID:

Received: 14 SEP 94 Sampled: 09 SEP 94 SOIL Matrix: Analyzed: See Below Prepared: See Below Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|--|---|--|--|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 12600 ND 2.6 142 ND ND 20200 17.4 ND 6.8 10400 5.5 3450 172 ND ND ND ND ND ND 20.6 24.3 | ###################################### | 57.1 17.1 0.50 11.4 1.1 0.57 114 5.7 5.7 5.7 5.7 1.0 114 2.3 0.10 11.4 17.1 571 0.50 5.7 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 |

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Approved By: Mei Lai Reported By: Don Carney

The cover letter is an integral part of this report.

Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc.

02660001 Client ID:

(2.00, 3.00,)

077682-0008-SA lab ID:

Received: 14 SEP 94 Sampled: 09 SEP 94 Analyzed: See Below SOIL Matrix: Prepared: See Below 14 SEP 94 Authorized:

| Authorizea: | 14 SEP 34 | 11000. | | | | |
|--|---|---|--|--|---|--|
| | Result | Dry Weight Re Units | porting Limit | Analytical Method | Prepared Date | Analyzed Date |
| Parameter Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 7840 ND 3.2 213 ND ND 133000 9.8 ND ND 6930 3.5 4400 179 ND ND ND ND ND ND ND ND ND ND | mg/kg | 54.7 16.4 0.50 10.9 1.1 1.1 219 5.5 5.5 10.9 2.2 0.10 10.9 16.4 090 0.50 5.5 090 0.50 10.9 4.4 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 29 SEP 94 29 SEP 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note Q: Reporting Limit raised due to high level of another analyte in the sample.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note B : Compound is also detected in the blank.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40%

and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Approved By: Mei Lai Reported By: Don Carney

> The cover letter is an integral part of this report. Rev 230787

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(Soil/Solid - Total)

Client Name: Gram, Inc.

01930001 (0.00,3.00,)Client ID:

077682-0005-SA Lab ID:

Received: 14 SEP 94 Analyzed: See Below Sampled: 08 SEP 94 Matrix: SOIL Prepared: See Below 14 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|---|--|--|--|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 10600 ND 2.8 102 ND ND 30400 8.2 ND 6.3 8690 4.8 2810 108 ND ND ND ND ND ND ND 17.8 22.0 | mg/kk mg/kkkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 54.0 16.2 0.50 10.8 1.1 0.54 108 5.4 5.4 5.4 1.0 108 2.2 0.10 10.8 16.2 540 0.50 5.4 540 0.50 10.8 2.2 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 |

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Approved By: Mei Lai Reported By: Don Carney

> The cover letter is an integral part of this report. Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 00970001

(3.00, 6.00,)

Lab ID:

077682-0006-SA

SOIL Matrix: Authorized: 14 SEP 94

Sampled: 09 SEP 94 Prepared: See Below Received: 14 SEP 94 Analyzed: See Below

| Author izea. | | • | | | | | |
|---|--|---|---|--|--|---|---|
| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date | |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 11500 ND 2.9 135 ND ND 25700 10.7 ND 6.7 10400 5.8 3510 162 ND ND ND ND ND ND ND ND ND ND ND ND ND | mg/kk kgg/kkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 57.4 17.2 0.50 11.5 1.1 0.57 115 5.7 5.7 5.7 1.0 115 2.3 0.10 11.5 17.2 574 0.50 5.7 5.7 | 6010 6010 7060 6010 6010 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 23 SEP 94 28 SEP 94 | } |

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 02960001 (2.50, 4.00,)

077682-0009-SA Lab ID:

Received: 14 SEP 94 Analyzed: See Below Sampled: 09 SEP 94 SOIL Matrix: Prepared: See Below Authorized: 14 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|---|---|--|--|---|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 8650 ND 2.3 95.4 ND ND 22800 7.8 ND ND 8150 4.8 2450 109 ND ND ND ND ND ND ND ND 1440 ND ND ND ND 1440 ND ND ND ND ND ND ND ND ND ND | mg/kk kgg/kkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 51.7 15.5 0.50 10.3 1.0 0.52 103 5.2 5.2 5.2 1.0 103 2.1 0.10 10.3 15.5 517 0.50 5.2 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7471 6010 6010 7471 6010 6010 6010 6010 | 22 SEP 94 22 SEP 94 | 28 SEP 94 20 SEP 94 28 SEP 94 28 SEP 94 28 SEP 94 23 SEP 94 28 SEP 94 28 SEP 94 23 SEP 94 23 SEP 94 28 SEP 94 |

Percent Moisture is 3%. All results and limits are reported on a dry weight basis.

Note B: Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787

77



(Soil/Solid - Total)

Client Name: Gram, Inc.

(0.00,3.00,) 01130001 Client ID:

077682-0010-SA Lab ID:

Received: 14 SEP 94 Sampled: 12 SEP 94 SOIL Matrix: Analyzed: See Below Prepared: See Below 14 SEP 94 Authorized:

| Authorizeu: | 14 261 | 24 | 1.00 | | | | |
|---|--------|--|---|---|--|---|--|
| Parameter | | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | | 9160 ND 2.1 176 ND ND 26400 9.0 ND ND ND ND ND ND ND ND ND ND | mg/kkgggg/kkkkggg/kkkkggg/kkkkkkkkkkkkk | 54.3 16.3 0.50 10.9 1.1 0.54 109 5.4 5.4 5.4 1.0 109 2.2 0.10 10.9 16.3 543 0.50 5.4 543 0.50 10.9 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 7841 6010 6010 6010 | 22 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40%

and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787

T- 378



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 01200001 (0.00, 3.00,)Client ID:

077682-0011-SA

Lab ID: Matrix: SOIL Authorized: 14 SEP 94

Sampled: 12 SEP 94 Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

| Author Izeu. | I'I OLI | • | | | | | |
|---|---------|--|---|---|--|--|--|
| Parameter | | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | | 13400 ND 3.1 237 ND ND 37500 12.1 ND 8.0 12000 6.4 4710 198 ND ND ND ND ND ND ND ND ND ND | mg/kk mg/kkkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 56.6 17.0 0.50 11.3 1.1 0.57 113 5.7 5.7 5.7 1.0 113 2.3 0.10 11.3 17.0 566 0.50 5.7 566 0.50 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7740 6010 6010 | 22 SEP 9 22 SEP 9 | 4 28 SEP 94 4 28 SEP 94 |

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because

the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787



(Water - Total)

Client Name: Gram, Inc. Client ID: 03140001

(0.00,0.00,)

Lab ID:

077682-0012-SA

Matrix:

AQUEOUS

Sampled: 13 SEP 94

Received: 14 SEP 94

Authorized:

14 SEP 94

Prepared: See Below

Analyzed: See Below

| Authorized: | 14 OEF 24 | 11060 | | | |
|--|---|--|--|--|--|
| | Result | Units | Reporting Limit | Analytical Method | Prepared Analyzed Date Date |
| Parameter Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese | Result 0.82 ND ND 0.096 ND ND 18.5 ND ND ND ND ND ND ND ND 0.40 ND 2.8 0.023 | Units mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L | Reporting Limit 0.50 0.40 0.0050 0.020 0.0030 0.040 0.50 0.070 0.070 0.060 0.10 0.0050 0.50 0.020 | Method 6010 7060 6010 6010 6010 6010 6010 6010 | Date Date 20 SEP 94 21 SEP 94 20 SEP 94 23 SEP 94 20 SEP 94 21 SEP 94 |
| Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | | mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L | | 6010 | 20 SEP 94 21 SEP 94 20 SEP 94 23 SEP 94 20 SEP 94 21 SEP 94 |

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787



QC LOT ASSIGNMENT REPORT Metals Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|---|---|--|--|--|
| Sample Number 077682-0001-SA 077682-0001-SA 077682-0001-SA 077682-0001-SA 077682-0001-SA 077682-0002-SA 077682-0002-SA 077682-0002-SA 077682-0002-SA 077682-0002-SA 077682-0003-SA 077682-0003-SA 077682-0003-SA 077682-0003-SA 077682-0003-SA 077682-0003-SA 077682-0004-SA 077682-0004-SA 077682-0004-SA 077682-0004-SA 077682-0004-SA 077682-0004-SA 077682-0004-SA 077682-0005-SA 077682-0005-SA 077682-0005-SA 077682-0005-SA 077682-0005-SA 077682-0005-SA 077682-0005-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA 077682-0006-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 7471-IRP-S 7421-IRP-S 7060-IRP-S 7740-IRP-S 1CP-IRP-S 7841-IRP-S 7421-IRP-S 7400-IRP-S 7740-IRP-S 7740-IRP-S 7471-IRP-S 7421-IRP-S 7421-IRP-S 7421-IRP-S 740-IRP-S 7740-IRP-S 7740-IRP-S 7740-IRP-S 7741-IRP-S | DCS) 20 SEP 94-AX 22 SEP 94-TX | |
| 077682-0007-SA 077682-0008-SA 077682-0008-SA 077682-0008-SA | SOIL SOIL SOIL SOIL | 7841-IRP-S 7471-IRP-S 7421-IRP-S 7060-IRP-S 7740-IRP-S ICP-IRP-S | 22 SEP 94-TX 20 SEP 94-AX 22 SEP 94-TX 22 SEP 94-TX 22 SEP 94-TX 22 SEP 94-TX | 20 SEP 94-AX 22 SEP 94-TX 22 SEP 94-TX 22 SEP 94-TX 22 SEP 94-TX |
| 077682-0008-SA | SOIL | TOI TIVE 3 | LL OLI JI IX | |



QC LOT ASSIGNMENT REPORT Metals Analysis and Preparation (cont.)

| Laboratory | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|---|---|--|---|--|
| Sample Number 077682-0008-SA 077682-0009-SA 077682-0009-SA 077682-0009-SA 077682-0009-SA 077682-0009-SA 077682-0010-SA 077682-0010-SA 077682-0010-SA 077682-0010-SA 077682-0011-SA 077682-0012-SA 077682-0012-SA 077682-0012-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 7841-IRP-S 7471-IRP-S 7471-IRP-S 7060-IRP-S 7740-IRP-S 1CP-IRP-S 7841-IRP-S 7471-IRP-S 7421-IRP-S 7740-IRP-S 7740-IRP-S 7740-IRP-S 7421-IRP-S 7421-IRP-S 7421-IRP-S 7421-IRP-S 7421-IRP-S 7421-IRP-S 7740-IRP-S 1CP-AT 7470-IRPAT AS-OBG-AT 7421-IRPAT | 22 SEP 94-TX 20 SEP 94-TX 22 SEP 94-TX 20 SEP 94-TX 22 SEP 94-CX 20 SEP 94-CX | 22 SEP 94-TX 20 SEP 94-TX 22 SEP 94-TX 20 SEP 94-CX |
| 077682-0012-3A | AQUEOUS | 7841 - IRPAT | 20 SEP 94-CX | 20 3EF 34-CX |



| Analyte | Result | Units | Reporting Limit |
|---|---|---|---|
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 20 SEP 94-AX QC Run: Mercury | 20 SEP 94-AX ND | mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Lead | 22 SEP 94-TX ND | mg/kg | 0.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Arsenic | 22 SEP 94-TX ND | mg/kg | 0.50 |
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Selenium | 22 SEP 94-TX ND | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Aluminum Antimony | ND ND | mg/kg mg/kg | 50.0 15.0 10.0 |
| Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum | ND ND ND ND ND ND 5.8 ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 1.0 0.50 100 5.0 5.0 5.0 100 2.0 |



| Analyte | Result | Units | Reporting Limit |
|--|---|---|--|
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Nickel Potassium Silver Sodium Vanadium Zinc | 22 SEP 94-TX ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 15.0 500 5.0 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Thallium | 22 SEP 94-TX ND | mg/kg | 0.50 |
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 20 SEP 94-AX QC Run: Mercury | 20 SEP 94-AX ND | mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Lead | 22 SEP 94-TX ND | mg/kg | 0,.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Arsenic | 22 SEP 94-TX ND | mg/kg | 0.50 |



| Analyte | Result | Units | Reporting Limit |
|--|---|---|--|
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: Selenium | 22 SEP 94-TX ND | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: | 22 SEP 94-TX | | |
| Aluminum Antimony Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum Nickel Potassium Silver Sodium Vanadium Zinc | ND ND ND ND ND ND ND ND ND ND ND ND ND N | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 50.0 15.0 10.0 1.0 0.50 100 5.0 5.0 5.0 10.0 15.0 5.0 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: | 22 SEP 94-TX | | |
| Thallium | ND | mg/kg | 0.50 |



| Analyte | Result | Units | Reporting Limit |
|--|---|--|---|
| Test: ICP-IRPMS-AT Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: | 20 SEP 94-CX | | |
| Aluminum Antimony Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum Nickel Potassium Silver Sodium Vanadium Zinc | ND ND ND ND ND ND ND ND ND ND ND ND ND N | mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L | 0.50 0.40 0.020 0.0030 0.040 0.50 0.070 0.060 0.10 0.50 0.020 0.080 0.15 5.0 0.070 5.0 0.080 0.020 |
| Test: HG-CVAA-COE-AT Matrix: AQUEOUS QC Lot: 16 SEP 94-CX QC Run: Mercury | 16 SEP 94-CX ND | mg/L | 0.00020 |
| Test: AS-FAA-GAFB-IRPMS-AT Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: | 20 SEP 94-CX | ma /1 | 0.0050 |
| Arsenic | ND | mg/L | 0.0030 |



Reporting Limit Units Result Analyte

Test: PB-FAA-GAFB-IRPMS-AT

Matrix: AQUEOUS

QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX

0.0050 mg/L ND Lead

Test: SE-FAA-GAFB-IRPMS-AT

Matrix: AQUEOUS

QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX

0.0050 ND mg/L Selenium

Test: TL-FAA-GAFB-IRPMS-AT

Matrix: AQUEOUS

QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX

0.0022 mg/L ND Thallium



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

| Analyte | Concent Spiked | | Accuracy(%) LCS Limits |
|--|--|---|---|
| Category: ICP-AT ICP Metals | | | |
| Matrix: ADJEDUS | SEP 94-CX | | |
| Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Tin Titanium Vanadium Zinc | 2.00 0.500 2.00 0.0500 1.00 0.0500 0.200 0.500 0.250 1.00 0.500 0.200 0.500 0.200 0.500 0.200 0.500 0.200 0.5000 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.500 0.5 | 2.17 0.560 0.511 2.23 0.0561 1.09 0.0492 104 0.213 0.524 0.267 1.10 0.492 0.217 52.1 0.527 0.214 0.522 51.6 2.17 0.0520 104 2.24 4.20 2.16 0.519 | 109 80-120 112 80-120 102 80-120 112 80-120 112 80-120 112 80-120 109 80-120 104 80-120 105 80-120 107 80-120 108 80-120 108 80-120 107 80-120 108 80-120 109 80-120 1010 80-120 102 80-120 103 80-120 104 80-120 105 80-120 106 80-120 107 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 108 80-120 |
| Analyte | Concent Spiked | ration Measured | Accuracy(%) LCS Limits |
| Category: 7470-IRPAT Mercury by CVAA STATIC QC LIMIT | S - DO NOT U | PDATE | |
| Matrix: AQUEOUS QC Lot: 16 SEP 94-CX QC Run: 1 Concentration Units: mg/L | | | |
| Mercury | 0.00100 | 0.000947 | 95 80-120 |

ND = Not Detected



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

(cont.)

| Analyte | Concent Spiked | ration Measured | Accuracy(%) LCS Limit | |
|--|---------------------------|--------------------|--------------------------|---------|
| Category: AS-OBG-AT Arsenic, Furnace Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 Concentration Units: mg/L | AA SEP 94-CX | | | |
| Arsenic | 0.0400 | 0.0435 | 109 80-12 | 0 |
| Analyte | • | ration Measured | Accuracy(%) LCS Limit | |
| Category: 7421-IRPAT Lead, Furnance A Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 Concentration Units: mg/L | AA (Total) D SEP 94-CX | | | |
| Lead | 0.0200 | 0.0198 | 99 83-11 | 3 |
| Analyte | Concent Spiked | ration Measured | Accuracy(%) LCS Limit | |
| Category: 7740-IRPAT Selenium, Furnac Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 Concentration Units: mg/L | ce AA O SEP 94-CX | | | |
| Selenium | 0.0200 | 0.0193 | 96 80-12 | 20 |
| | | | | |
| Analyte | Concent Spiked | ration Measured | Accuracy(%) LCS Limit |) ts |
| Category: 7841-IRPAT Thallium, Furna | Spiked | | Accuracy(%) LCS Limit |) ts |

ND = Not Detected



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

(cont.)

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte · Category: 7471-IRP-S Mercury by CVAA STATIC QC LIMITS - DO NOT UPDATE SOIL Matrix: QC Run: 20 SEP 94-AX 20 SEP 94-AX QC Lot: Concentration Units: mg/kg 102 75-125 32.7 32.0 Mercury Accuracy(%) Concentration Limits LCS Spiked Measured Analyte Category: 7421-IRP-S Lead, Furnace AA STATIC QC LIMTS - DO NOT UPDATE Matrix: QC Run: 22 SEP 94-TX 22 SEP 94-TX OC Lot: Concentration Units: mg/kg 65-135 119 60.8 50.9 Lead Accuracy(%) Concentration Limits LCS Spiked Measured Analyte Category: 7060-IRP-S Arsenic, Furnace AA STATIC QC LIMTS - DO NOT UPDATE SOIL Matrix: QC Run: 22 SEP 94-TX 22 SEP 94-TX QC Lot: Concentration Units: mg/kg 123 75-125 88.5 72.1 Arsenic Accuracy(%) Concentration LCS Limits Spiked Measured Analyte Category: 7740-IRP-S Selenium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE SOIL QC Run: 22 SEP 94-TX 22 SEP 94-TX Concentration Units: mg/kg 70-130 112 82.8 74.2 Selenium

ND = Not Detected



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

(cont.)

| Analyte | Concentr Spiked | ation Measured | Accui LCS | racy(%) Limits |
|---|---|---|--|--|
| Category: ICP-IRP-S ICP Metals | DO NOT HE | DΔTF | | |
| Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 Concentration Units: mg/kg | SEP 94-TX | DATE | | |
| Aluminum Antimony Arsenic Barium Beryllium Calcium Cadmium Chromium Copper Cobalt Iron Magnesium Manganese Molybdenum Potassium Lead Nickel Selenium Silver Sodium Thallium Vanadium Zinc | 3650 75.0 72.1 64.8 26.7 2330 61.6 44.1 78.1 177 7360 2550 141 104 3310 50.9 110 74.2 71.7 346 64.1 83.0 78.2 | 4270 72.1 76.1 69.6 29.7 2500 63.4 47.4 82.8 193 8350 2750 149 122 3600 53.6 119 71.0 71.0 346 86.7 81.7 | 117 96 106 107 111 107 103 107 106 109 113 108 106 118 109 105 108 96 99 100 97 104 | 75-140 50-150 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 |
| Analyte | Concentr Spiked | ration Measured | Accu LCS | racy(%) Limits |
| Category: 7841-IRP-S Thallium, Furnace STATIC QC LIMITS | e AA - DO NOT III | PDATE | | |
| Matrix: SOII . | SEP 94-TX | , DATE | | |
| Thallium | 64.1 | 80.9 | 126 | 65-135 |

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

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7 392

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc. Client ID: 01780001 (0.00, 3.00,)

077682-0001-SA Lab ID:

Received: 14 SEP 94 Analyzed: See Below Sampled: 07 SEP 94 Matrix: SOIL Authorized: 14 SEP 94 Prepared: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.55 | 9012 Modified | 20 SEP 94 | 21 SEP 94 |
| (as N) | 8.3 | mg/kg | 0.28 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report. Rev 230787

GENERAL INORGANICS



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01790001

(0.00,3.00,)

Lab ID:

077682-0002-SA

Matrix: SOIL

Sampled: 07 SEP 94

Received: 14 SEP 94

Authorized: 14 SEP 94

Prepared: See Below

Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.55 | 9012 Modified | 20 SEP 94 | 21 SEP 94 |
| Nitrate + Nitrite (as N) | 5.6 | mg/kg | 0.27 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report. Rev 230787

394 1 2021 394



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01790002 (0.00, 3.00,)

Lab ID:

077682-0003-SA

Matrix: SOIL 14 SEP 94 Authorized:

Sampled: 07 SEP 94 Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-----------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total | ND | mg/kg | 0.54 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| Nitrate + Nitrite (as N) | 3.5 | mg/kg | 0.27 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01800001 (0.00,3.00,)

Lab ID: 077682-0004-SA

Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Prepared Analyzed Analytical Dry Weight Reporting Date Date Method Result Units Limit Parameter 19 SEP 94 20 SEP 94 9012 Modified 0.53 ND mg/kg Cyanide, Total Nitrate + Nitrite 353.2 Modified 26 SEP 94 28 SEP 94 R 0.53 12.9 mg/kg (as N)

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Jennifer Kimzey

Environmental Services

(Soil/Solid)

Client Name: Gram, Inc. Client ID: 01930001 (0.00, 3.00,)

Lab ID:

077682-0005-SA

Matrix: SOIL

Sampled: 08 SEP 94

Received: 14 SEP 94

Authorized: 14 SEP 94

Prepared: See Below

Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.54 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 8.3 | mg/kg | 0.27 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton



(Soil/Solid)

Client Name: Gram, Inc.

00970001 Client ID:

(3.00, 6.00,)

Lab ID:

077682-0006-SA

Matrix:

SOIL

Authorized: 14 SEP 94

Sampled: 09 SEP 94 Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-----------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total | ND | mg/kg | 0.57 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| Nitrate + Nitrite (as N) | 8.3 | mg/kg | 0.29 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01090001 (3.00, 6.00,)

Lab ID:

077682-0007-SA

Matrix: SOIL Authorized:

14 SEP 94

Sampled: 09 SEP 94

Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Result Units Limit Method Parameter Date Date ND 0.57 9012 Modified 19 SEP 94 20 SEP 94 Cyanide, Total mg/kg Nitrate + Nitrite (as N) 353.2 Modified 26 SEP 94 27 SEP 94 1.7 mg/kg 0.29

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton



(Soil/Solid)

Client Name: Gram, Inc.

(2.00, 3.00,) Client ID: 02660001

077682-0008-SA Lab ID:

Received: 14 SEP 94 Analyzed: See Below Sampled: 09 SEP 94 SOIL Matrix: Prepared: See Below 14 SEP 94 Authorized:

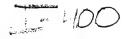
| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-----------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total | ND | mg/kg | 0.55 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| Nitrate + Nitrite (as N) | 10.9 | mg/kg | 0.27 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton





(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 02960001 (2.50,4.00,)

Lab ID: 077

077682-0009-SA

Matrix: SOIL Authorized: 14 SEP 94 Sampled: 09 SEP 94 Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

Prepared Analyzed Dry Weight Reporting Analytical Result · <u>Units</u> Limit Method Date Date Parameter 19 SEP 94 20 SEP 94 Cyanide, Total ND mg/kg 0.52 9012 Modified Nitrate + Nitrite 353.2 Modified 26 SEP 94 27 SEP 94 (as N) 6.5 mg/kg 0.26

Percent Moisture is 3%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report.

Rev 230787

T- 401



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01130001 (0.00,3.00,)

Lab ID: 077682-0010-SA

Matrix: SOIL Sampled: 12 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-----------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total | ND | mg/kg | 0.54 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| Nitrate + Nitrite (as N) | 5.0 | mg/kg | 0.27 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report. Rev 230787

- 40



(Soil/Solid)

Matrix:

Client Name: Gram, Inc. Client ID: 01200001 (0.00, 3.00,)

Lab ID:

077682-0011-SA

SOIL Sampled: 12 SEP 94 Authorized: 14 SEP 94 Prepared: See Below

Received: 14 SEP 94 Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.57 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 4.1 | mg/kg | 0.28 | 353.2 Modified | 26 SEP 94 | 27 SEP 94 |

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton





(Water)

Client Name: Gram, Inc. Client ID: 03140001 (0.00, 0.00,)Client ID:

077682-0012-SA Lab ID:

Received: 14 SEP 94 Analyzed: See Below Sampled: 13 SEP 94 Prepared: See Below AQUEOUS Matrix: Authorized: 14 SEP 94

| Parameter | Result | Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-----------------------------|--------|-------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total | ND | mg/L | 0.010 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| Nitrate + Nitrite (as N) | 0.64 | mg/L | 0.050 | 353.2 | NA | 27 SEP 94 |

ND = Not detected NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton



QC LOT ASSIGNMENT REPORT Wet Chemistry Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|-----------------------------|-----------|-------------|-----------------------------|------------------------------|
| 077682-0001-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0001-SA | SOIL | CN-IRP-S | 20 SEP 94-A | 20 SEP 94-A |
| 077682-0002-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0002-SA | SOIL | CN-IRP-S | 20 SEP 94-A | 20 SEP 94-A |
| 077682-0003-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0003-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0004-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0004-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0005-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0005-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0006-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0006-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0007-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0007-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0008-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0008-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0009-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0009-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A |
| 077682-0010-SA | SOIL | N03&N02-S | 26 SEP 94-A | 26 SEP 94-A |
| 077682-0010-SA | SOIL | CN-IRP-S | 19 SEP 94-A | 19 SEP 94-A 26 SEP 94-A |
| 077682-0011-SA | SOIL | NO3&NO2-S | 26 SEP 94-A 19 SEP 94-A | |
| 077682-0011-SA | SOIL | CN-IRP-S | 19 SEP 94-A 27 SEP 94-AX | 19 SEP 94-A 27 SEP 94-AX |
| 077682-0012-SA | AQUEOUS | NO3&NO2-A | | |
| 077682-0012-SA | AQUEOUS | CN-A | 19 SEP 94-A | 19 SEP 94-A |



METHOD BLANK REPORT Wet Chemistry Analysis and Preparation

| Analyte | Result | Units | Reporting Limit |
|---|---------------------|-------|--------------------|
| Test: NO3&NO2-S Matrix: SOIL QC Lot: 26 SEP 94-A QC Run: | 26 SEP 94-A | | |
| Nitrate + Nitrite (as N) | ND | mg/kg | 0.25 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL | 20 CED 04 A | | |
| QC Lot: 20 SEP 94-A QC Run: Cyanide, Total | 20 SEP 94-A ND | mg/kg | 0.50 |
| Test: NO3&NO2-S Matrix: SOIL QC Lot: 26 SEP 94-A QC Run: | 26 SEP 94 -A | | |
| Nitrate + Nitrite (as N) | ND | mg/kg | 0.25 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 20 SEP 94-A QC Run: | 20 SEP 94-A | | |
| Cyanide, Total | ND | mg/kg | 0.50 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: | 19 SEP 94-A | | |
| Cyanide, Total | ND . | mg/kg | 0.50 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: | 19 SEP 94-A | | |
| Cyanide, Total | ND | mg/kg | 0.50 |



METHOD BLANK REPORT Wet Chemistry Analysis and Preparation (cont.)

Reporting Limit Units Result Analyte

Test: N03+N02-A

Matrix: AQUEOUS QC Lot: 27 SEP 94-AX QC Run: 27 SEP 94-AX

Nitrate + Nitrite ND mg/L 0.050 (as N)

Test: CN-9012-AT

Matrix: AQUEOUS QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A

ND mg/L 0.010 Cyanide, Total



LABORATORY CONTROL SAMPLE REPORT Wet Chemistry Analysis and Preparation

Concentration Accuracy(%)
Analyte Spiked Measured LCS Limits

Category: NO3&NO2-A Nitrate plus nitrite

STATIC QC LIMTS - DO NOT UPDATE

Matrix: AQUEOUS

QC Lot: 27 SEP 94-AX QC Run: 27 SEP 94-AX

Concentration Units: mg/L

Nitrate + Nitrite (as N) 0.500 0.515 103 90-110

Concentration Accuracy(%)
Analyte Spiked Measured LCS Limits

Analyte Spiked Measured L

Category: CN-A Cyanide

Matrix: AQUEOUS

OC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A

Concentration Units: mg/L

Cyanide, Total 0.100 0.0980 98 73-111

Concentration Accuracy(%)
Analyte Spiked Measured LCS Limits

Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.

Matrix: SOIL

OC Lot: 26 SEP 94-A QC Run: 26 SEP 94-A

Concentration Units: mg/kg

Nitrate + Nitrite (as N) 2.50 2.49 100 75-125

Concentration Accuracy(%)
Analyte Spiked Measured LCS Limits

Category: CN-IRP-S Cyanide

Matrix: SOIL

QC Lot: 20 SEP 94-A QC Run: 20 SEP 94-A

Concentration Units: mg/kg

Cyanide, Total 5.00 4.55 91 77-115

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

1.408



LABORATORY CONTROL SAMPLE REPORT Wet Chemistry Analysis and Preparation

(cont.)

Analyte

Concentration Spiked Measured Accuracy(%) LCS Limits

Category: CN-IRP-S Cyanide Matrix: SOIL

QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A

Concentration Units: mg/kg

Cyanide, Total

5.00

4.90

77-115 98

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

- L 09

1-4/0



Quanterra Incorporated 880 Riverside Parkway West Sacramento, California 95605

916 373-5600 Telephone 916 372-1059 Fax

October 12, 1994

QUANTERRA PROJECT NUMBER: 077730

PO/CONTRACT: 006

Jeff Johnson Gram, Inc. 8500 Menaul Blvd. NE, #B-370 Albuquerque, NM 87112

Dear Mr. Johnson:

This report contains the analytical results for the thirteen soil samples which were received under chain of custody by Quanterra West Sacramento on 17 and 21 September 1994. These samples are associated with your Kirtland Air Force Base project.

The case narrative is an integral part of this report.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana L. Brooks Project Manager

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Case Narrative

Quanterra's Quality Assurance Program

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Chain of Custody Documentation

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Sample Data Sheets
Method Blank Report

Laboratory Control Sample Report (LCS)

Nitroaromatics and Nitramines by HPLC - Method 8330

Includes Samples: 1 through 13

Sample Data Sheets Method Blank Report

Laboratory Control Sample Report (LCS)

Semivolatile Organics - Method 8270

Includes Samples: 1, 4

Sample Data Sheets Method Blank Report

Laboratory Control Sample Report (LCS/SCS)

Selected Metals - Various Methods

Includes Samples: 1 through 13

Sample Data Sheets Method Blank Report

Laboratory Control Sample Report (LCS)

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QUANTERRA PROJECT NUMBER 077730

General Inorganics - Various Methods
Includes Samples: 1 through 13
Sample Data Sheets
Method Blank Report
Laboratory Control Sample Report (LCS)

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CASE NARRATIVE

QUANTERRA PROJECT NUMBER 077730

General Comments

The temperature blank associated with your samples was recorded as 2.1 degrees C.

Semivolatile Organics - Method 8270

The Laboratory Control Sample (LCS) was found o have 3-Nitroaniline above the control limits. There were no positive results found in the samples, thus no corrective actions were necessary.

The Laboratory Control Sample (LCS) has benzoic acid report as NA. The actual value recovery (43%) is within the control limits. Noted in the QAPjP, this compound is flagged for a variance.

Due to electronic deliverable limitations, the library search data is available in hardcopy only.

Selected Metals - Various Methods

Analysis of thallium was performed by graphite furnace in order to achieve detection level required by the QAPjP.

No other anomalies were associated with this report.



QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documental quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.



SAMPLE DESCRIPTION INFORMATION for Gram, Inc.

| Lab ID | Client ID | | Matrix | Sampled Date Time | Received Date |
|--|--|--|--|--|--|
| 077730-0001-SA 077730-0002-SA 077730-0003-SA 077730-0004-SA 077730-0006-SA 077730-0007-SA 077730-0008-SA 077730-0009-SA 077730-0010-SA 077730-0011-SA 077730-0012-SA | 00460001 00470001 00470002 00490001 00760001 00090001 00130001 00250001 00350001 01360001 01400001 02150001 | (3.00,6.00,) (3.00,6.00,) (3.00,6.00,) (3.00,6.00,) (3.00,6.00,) (3.00,6.00,) (6.00,9.00,) (0.00,3.00,) (0.00,3.00,) (2.50,6.00,) (2.50,6.00,) (3.00,6.00,) | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 12 SEP 94 13:10 12 SEP 94 13:10 12 SEP 94 13:10 12 SEP 94 13:10 13 SEP 94 13:45 14 SEP 94 09:30 14 SEP 94 10:05 14 SEP 94 12:45 14 SEP 94 14:00 15 SEP 94 10:51 15 SEP 94 08:15 15 SEP 94 10:30 | 17 SEP 94 17 SEP 94 17 SEP 94 17 SEP 94 17 SEP 94 17 SEP 94 17 SEP 94 21 SEP 94 21 SEP 94 21 SEP 94 |

CHAIN OF CUSTODY

| | | | NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK | TEMPERATURE FR | OM TEMPERATUR | UE BLANK | |
|----------------------------------|--|--|---|------------------|------------------|----------|------|
| PROJECT NAME: | McCORMICK RANCH | # OF CONTAINERS • | 16 to a wi | ing his cach | Supple ID | | |
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | 0 | | | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | 1005 | | | | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 1。つ。 ト | | | | |
| LABORATORY CONTACT: | | ANALYSES REQUESTED | 1 2 | 3 4 | 8 | 9 | 7 |
| SAMPLE IDENTIFICATION | | DATE/TIME | | | | | |
| SITE ID, LOCATION ID, SAMPLE ID) | PLE ID) | MATRIX COLLECTED | | | | | |
| KRILDISA - 0 1 3 6 | - 000 | 1501 49/2/15 S | | , | 7 | / | 7 |
| KRTLD154 - 01 4 0 | 1.000 | | / | / | / | / | 7 |
| KRILD154- Q 2 1 S | .000. | S 9/9 km mg R | / | \ | \ | \ | / |
| KRTLD184-0225 | 1000 | 701 | 1 | , , | / | 1 | 1 |
| KRTLD154 - | | T | | | | | |
| KRTLD154. | | | | | | | |
| KRTLD154 - | | | | | | | |
| KRTLD154 - | | | | | | | |
| CRTLD154 | | | | | | | |
| KRTLD154 - | | | | | | | |
| (KRTLD154 | | | | | | | |
| P MATRIX. | CONTAINER TYPES: | LABORATORY ANALYSES: | | | | | |
| S-SOIL• | P - POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | 8330-ADD-1, SW8330-ADD-3 | (2 | | | |
| W.WATER | CG - CLEAR GLASS | 2. NITRATE + NITRITE (E353.2) | (2) | | | | |
| э.отнек | AG - AMBER GLASS | 3. SEMI-VOCs (SW8270) | | | | | |
| •NOTE: FOR SOIL SAMPLES O | •NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | NUS LEAD, ARSENIC, SELE | NIUM, AND MERCUF | RY | | |
| 4 C IS REQUIRED TO PROVIDE | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL | | | | | | |
| ARE IDENTIFIED BY CHECKIN | ANALI SES. THE KEQUIKED ANALYSES FOR EACH SOIL SAMPLE. ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7) | LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) CYANIDE (SW9012) | (SW7060), SELENIUM (SW7 | 740) | | | |
| | RELINQUISHED BY: | RECEIVED BY: | ED BY: | | | | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | NOIS | SIGNATURE | DATE | TIME | |
| LATA | Sansof Darton | ななか、ひしく | JE4 301 | Johnson | 9/20 | 1315 | |
| | | | | | | | |
| REL | RELEASED TO SHIPPER BY: | | RECEIVED BY SHIPPER: | PER: | | Г | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | 1 SIGNATURE | - | BILL OF LADING # | DATE | TIME |
| CARINA AINC | VEH JOHNS | FED-CX | A AMERICAN | 89 | 9235354420 | 1177 | 1250 |
| | | | | | ſ | | |
| RELEASED | RELEASED TO LABORATORY BY (SHIPPER): | - 1 | RECEIVED BY LABORATORY: | | | | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | - 1 | SIGNATURE | DATE | TIME | |
| | | Chuistona | 7/1/18/11 | | 4. W 54 | 24:15 | |
| | | | | | | | |

CHAIN OF CUSTODY

Cooler tomp=2.18.
Samples red in good.
Condurais. 1403 DATE TIME TIME NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK DATE 19-44 DATE BILL OF LADING # 9/16 1-1600 jur for each shoop bycother S 13535 44 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY Johnson SIGNATURE SIGNATURE 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) RECEIVED BY SHIPPER: I. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) RECEIVED BY LABORATORY: SIGNATURE 1602 し。ナ b RECEIVED BY: 2. NITRATE + NITRITE (E353.2) 1345 250 HJ/h/12 5421 48H1/5 (35) 30 9/14/64 14ac 5/14/7# 16K25 LABORATORY ANALYSES: SIC ANALYSES REQUESTED TYPE OF CONTAINERS COLLECTED CONTAINER VOLUME DATE/TIME COMPANY NAME COMPANY NAME COMPANY NAME # OF CONTAINERS • 3. SEMI-VOCs (SW8270) S. MERCURY (SW7471) PRESERVATIVE CYANIDE (SW9012) 412/64 9/2/44 5 GRAMITAG शिक दिन 242 MATRIX PHILLIPS LABORATORY, KIRTLAND AFB IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL Show OTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT JEFF JOHNSON (GRAM) 505-299-1282 STEVE GORIN (LATA) 505-880-3439 IALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE EIDENTIFIED BY CHECKING THE APPROPRIATE BOXEB (1-1) SIGNATURE SIGNATURE SIGNATURE RELEASED TO LABORATORY BY (SHIPPER): RELEASED TO SHIPPER BY: CONTAINER TYPES: P - POLYETHYLENE McCORMICK RANCH AG - AMBER GLASS CG - CLEAR GLASS RELINQUISHED BY: 0000 000 0 0 00 0 O FE ID, LOCATION ID, SAMPLE ID) 0 SAMPLE IDENTIFICATION ABORATORY CONTACT: SECONDARY CONTACT: COMPANY NAME PRIMARY CONTACT: COMPANY NAME COMPANY NAME 00 PROJECT NAME: Ö 00 0 0 0 d CLIENT: 0 0 TLD154-Q Jean TLD154-TLD154-TLD154-TILDIS4 TLD154 -TLD154 -TLD154-TLD154-TLD154-TLD154. . WATER OTHER Soil. ATRIX:



Method 8321

Client Name: Gram, Inc. Client ID: 00460001 (3.00,6.00,)

077730-0001-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 00470001 (3.00,6.00,)

077730-0002-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

Reporting Dry Wt. Limit Units Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 00470002 (3.00,6.00,)

077730-0003-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

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Method 8321

Client Name: Gram, Inc.

(3.00, 6.00,)00490001 Client ID:

077730-0004-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

Dry Wt. Reporting Limit Units Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

J. 42d



Method 8321

Client Name: Gram, Inc. Client ID: 00090001 (3.00,6.00,) Client ID:

077730-0006-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

Dry Wt. Units Reporting Limit Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 ND mg/kg PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

T-423



Le uanterra

Environmental

Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc. Client ID: 00760001 (3.00,6.00,)

077730-0005-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 13 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

I-424

Environmental

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc. Client ID: 00130001 (6.00,9.00,)

077730-0007-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 00250001 (0.00, 3.00,)

077730-0008-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

Reporting Limit Dry Wt. Units Result Parameter 0.50 mq/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

T-426

Method 8321

Client Name: Gram, Inc. Client ID: 00350001 (0.00,3.00,)

077730-0009-SA Lab ID:

Received: 17 SEP 94 Analyzed: 28 SEP 94 Sampled: 14 SEP 94 SOIL Matrix: Prepared: 24 SEP 94 17 SEP 94 Authorized:

Dry Wt. Units Reporting Limit Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 01360001 (2.50, 6.00,)Client ID:

077730-0010-SA Lab ID:

Received: 21 SEP 94 Analyzed: 28 SEP 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 Matrix: SOIL 17 SEP 94 Authorized:

Reporting Dry Wt. Limit Units Result Parameter 0.50 mg/kg ND Nitroglycerin 0.50 ND mg/kg PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 01400001 (2.50,6.00,)

Lab ID:

077730-0011-SA

SOIL Matrix: Authorized: 17 SEP 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94

Received: 21 SEP 94 Analyzed: 28 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---------------|--------|------------------|--------------------|
| Nitroglycerin | ND | mg/kg | 0.50 |
| PETN | ND | mg/kg | 0.50 |

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



Method 8321

Client Name: Gram, Inc. Client ID: 02150001 (2.50,5.00,)

077730-0012-SA Lab ID:

Received: 21 SEP 94 Analyzed: 29 SEP 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 Matrix: SOIL Authorized: 17 SEP 94

Dry Wt. Units Reporting Limit Result Parameter 0.50 ND mg/kg Nitroglycerin 0.50 ND mg/kg PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler





Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc. Client ID: 02250001 Lab ID: 077730-0013-SA (3.00,6.00,)

Lab ID:

Received: 21 SEP 94 Analyzed: 29 SEP 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 SQIL Matrix: 17 SEP 94 Authorized:

Reporting Dry Wt. Units Limit Result Parameter

0.50 mq/kg ND Nitroglycerin 0.50 mg/kg ND PETN

ND = Not detected NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler



QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | (SCS/BLANK) |
|--|---|--|---|--|
| 077730-0001-SA 077730-0002-SA 077730-0003-SA 077730-0004-SA 077730-0005-SA 077730-0006-SA 077730-0008-SA 077730-0008-SA 077730-0009-SA 077730-0010-SA 077730-0011-SA 077730-0012-SA 077730-0013-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S 8321-IRP-S | 23 SEP 94-7C | 23 SEP 94-7C 23 SEP 94-7C |



METHOD BLANK REPORT Special Services - LC Mass Spectrometry

| Analyte | | Result | Units | Reporting Limit |
|---|---------|-----------------------|----------------|--------------------|
| Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 23 SEP 94-7C Nitroglycerin PETN | QC Run: | 23 SEP 94-7C ND ND | mg/kg mg/kg | 0.50 0.50 |
| Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 23 SEP 94-7C Nitroglycerin PETN | QC Run: | 23 SEP 94-7C ND ND ND | mg/kg mg/kg | 0.50 0.50 |



LABORATORY CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry Project: 077730

Category: 8321-IRP-S Explosives by HPLC/MS
Matrix: SOIL
QC Lot: 23 SEP 94-7C QC Run: 23 SEP 94-7C

Concentration Units: mg/kg

| Analyte | Concent | ration | Accur | acy(%) |
|---------------|---------|----------|-------|--------|
| | Spiked | Measured | LCS | Limits |
| Nitroglycerin | 5.00 | 6.61 | 132 | 65-135 |
| PETN | 2.50 | 2.92 | 117 | 65-135 |

ND = Not Detected



Method 8330

(3.00,6.00,)

Client Name: Gram, Inc. Client ID: 00460001 Lab ID: 077730-000 077730-0001-SA

Received: 17 SEP 94 Analyzed: 30 SEP 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: 17 SEP 94 Authorized:

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 00470001

(3.00,6.00,)

077730-0002-SA Lab ID:

Received: 17 SEP 94 Analyzed: 01 OCT 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

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Method 8330

Client Name: Gram, Inc. Client ID: 00470002

(3.00,6.00,)

077730-0003-SA Lab ID:

Received: 17 SEP 94 Analyzed: 01 OCT 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 00490001

(3.00,6.00,)

077730-0004-SA Lab ID:

Received: 17 SEP 94 Analyzed: 01 OCT 94 Sampled: 12 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 00760001

(3.00, 6.00,)

Lab ID:

077730-0005-SA

Matrix:

SOIL 17 SEP 94 Sampled: 13 SEP 94 Prepared: 24 SEP 94

ND

ND

Received: 17 SEP 94 Analyzed: 04 OCT 94

Reporting

Limit

Authorized:

| Parameter | Result |
|---------------------|--------|
| HMX | ND |
| sym-Trinitrobenzene | ND |
| RDX | ND |
| 1.3-Dinitrobenzene | ND |

| ND | mg/kg | 0.25 |
|-----|--------|------|
| ND | mg/kg | 0.25 |
| 110 | m9/ N9 | 0.20 |

Dry Wt.

Units

| 2,6-Dinitrotoluene |
|--------------------|
| 2-Nitrotoluene |
| 4-Nitrotoluene |
| 3-Nitrotoluene |
| |

Nitrobenzene

Tétryl

2,4,6-Trinitrotoluene

2.4-Dinitrotoluene

mg/kg mg/kg mg/kg 0.25 mg/kg mg/kg

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 00090001 (3.00,6.00,)

077730-0006-SA

Lab ID: Received: 17 SEP 94 Analyzed: 04 OCT 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.

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1-140



Method 8330

Client Name: Gram, Inc. Client ID: 00130001 (6.00,9.00,)

Lab ID:

077730-0007-SA

Received: 17 SEP 94 Analyzed: 04 OCT 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 Matrix: SOIL Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.

Rev 230787

I-441



Method 8330

Client Name: Gram, Inc. Client ID: 00250001 (0.00,3.00,)

077730-0008-SA Lab ID:

Sampled: 14 SEP 94 Prepared: 24 SEP 94 Received: 17 SEP 94 SOIL Matrix: Analyzed: 04 OCT 94 Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 01360001 Lab ID: 077730-0010 (2.50,6.00,)

077730-0010-SA

Received: 21 SEP 94 Analyzed: 04 OCT 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

I- 4/13



Method 8330

Client Name: Gram, Inc. Client ID: 00350001 (0.00,3.00,) Client ID:

077730-0009-SA Lab ID:

Received: 17 SEP 94 Analyzed: 04 OCT 94 Sampled: 14 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



Method 8330

Client Name: Gram, Inc. Client ID: 01400001 (2.50,6.00,)

077730-0011-SA Lab ID:

Received: 21 SEP 94 Analyzed: 04 OCT 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 Matrix: SOIL Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report. Rev 230787

J= 4145



Method 8330

Client Name: Gram, Inc. Client ID: 02150001

(2.50,5.00,)

Lab ID:

077730-0012-SA

SOIL Matrix: Authorized: 17 SEP 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94

Received: 21 SEP 94 Analyzed: 04 OCT 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--|---|--|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.

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Environmental

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc. Client ID: 02250001 (3.00,6.00,)

077730-0013-SA Lab ID:

Received: 21 SEP 94 Analyzed: 04 OCT 94 Sampled: 15 SEP 94 Prepared: 24 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Wt. Units | Reporting Limit |
|---|--------|------------------|--------------------|
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | ND | mg/kg | 0.25 |
| | ND | mg/kg | |

ND = Not detected NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler



QC LOT ASSIGNMENT REPORT Special Services - LC Mass Spectrometry

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|--|--|---|--|
| 077730-0001-SA 077730-0002-SA 077730-0003-SA 077730-0004-SA 077730-0006-SA 077730-0006-SA 077730-0008-SA 077730-0009-SA 077730-0010-SA 077730-0011-SA 077730-0012-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S 8330-IRP-S | 23 SEP 94-7B | 23 SEP 94-7B 23 SEP 94-7B |



METHOD BLANK REPORT Special Services - LC Mass Spectrometry

| Analyte | Result | Units | Reporting Limit |
|---|--|---|--|
| Test: 8330-IRP-KAFB-1C-S Matrix: SOIL QC Lot: 23 SEP 94-7B QC Run | : 23 SEP 94-7B | | |
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |
| Test: 8330-IRP-KAFB-1C-S Matrix: SOIL QC Lot: 23 SEP 94-7B QC Run | : 23 SEP 94-7B | | |
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Nitrotoluene 3-Nitrotoluene 4-Nitrotoluene | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 |



LABORATORY CONTROL SAMPLE REPORT Special Services - LC Mass Spectrometry Project: 077730

Category: 8330-IRP-S Explosives by HPLC

Matrix: SOIL QC Lot: 23 SEP 94-7B QC Run: 23 SEP 94-7B

Concentration Units: mg/kg

| | Concent | ration | Accuracy(%) | |
|---|--|---|---|--|
| Analyte | | Measured | LCS | Limits |
| HMX sym-Trinitrobenzene RDX 1,3-Dinitrobenzene Nitrobenzene 2,4,6-Trinitrotoluene Tetryl 2,4-Dinitrotoluene 2,6-Dinitrotoluene 2-Am-DNT 4-Am-DNT 2-Nitrotoluene 4-Nitrotoluene 3-Nitrotoluene | 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 0.886 0.937 0.868 0.891 0.875 0.898 1.05 0.860 0.885 0.882 0.868 0.884 | 89 94 87 89 88 90 105 86 88 88 92 96 | 75-107 65-135 70-99 74-99 71-95 75-107 65-135 72-106 66-102 77-101 77-108 72-97 67-110 75-104 |
| 2-M1ft0f01gene | | | | |

ND = Not Detected



Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 00460001 Lab ID: 077730-0001-SA (3.00,6.00,)

Received: 17 SEP 94 Analyzed: 06 OCT 94 Sampled: 12 SEP 94 Prepared: 21 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|--|---|---|
| Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic acid Benzyl alcohol | ND | mg/kg | 0.74 |
| | ND | mg/kg | 1.7 |
| 4-Bromophenyl phenyl ether Butyl benzyl phthalate 4-Chloroaniline 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.74 |
| | ND | mg/kg | 0.74 |
| | ND | mg/kg | 1.4 |
| | ND | mg/kg | 0.74 |
| bis(2-Chloroethoxy)- methane bis(2-Chloroethyl) ether 4-Chloro-3-methylphenol 2-Chlorophenol 2-Chlorophenol | ND | mg/kg | 0.74 |
| | ND | mg/kg | 0.74 |
| | ND | mg/kg | 1.4 |
| | ND | mg/kg | 0.74 |
| | ND | mg/kg | 0.35 |
| 4-Chlorophenyl phenyl ether Chrysene Di-n-butyl phthalate Dibenz(a,h)anthracene Dibenzofuran 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzidine 2,4-Dichlorophenol Diethyl phthalate 2,4-Dimethyl phenol Dimethyl phthalate | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 0.74 0.74 0.74 0.74 0.74 1.4 0.35 0.74 |
| 4,6-Dinitro- 2-methylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-n-octyl phthalate | ND | mg/kg | 3.5 |
| | ND | mg/kg | 3.5 |
| | ND | mg/kg | 0.74 |
| | ND | mg/kg | 0.74 |
| | ND | mg/kg | 0.74 |

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers



Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 00460001 (3.00, 6.00,)

077730-0001-SA Lab ID:

Received: 17 SEP 94 Analyzed: 06 OCT 94 Sampled: 12 SEP 94 Prepared: 21 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|---|--|--|--|
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitroaniline Nitrobenzene 2-Nitrophenol N-Nitrosodiphenylamine | | mg/kg mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.35 0.35 0.74 3.5 3.5 0.35 |
| N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND 46 ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 3.5 0.74 0.35 0.74 0.74 3.5 |
| Surrogate | Recovery | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 75 86 116 90 80 94 | % % % % | |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers



Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc. Client ID: 00460001 Lab ID: 077730-0001-SA (3.00,6.00,)

Received: 17 SEP 94 Analyzed: 06 OCT 94 Sampled: 12 SEP 94 Prepared: NA Matrix: SOIL Authorized: 17 SEP 94

| Parameter | Result | Units | Reporting Limit |
|-----------------------------|--------|--------|--------------------|
| Heptane, 2,4-dimethyl- | 340 | ug/kg | |
| Unknown lactone | 530 | ug/kg | |
| Unknown ketone | 1500 | ug/kg | |
| Unknown oxygenated compound | 1800 | ug/kg | |
| Unknown oxygenated compound | 6800 | ug/kg | |
| Unknown | 620 | ug/kg | |
| Unknown alkane | 700 | ug/kg | |
| Unknown alkane | 850 | ug/kg | |
| | 830 | ug/kg | |
| Unknown | 1100 | ug/kg | |
| Pentacosane | | ug/kg | |
| Unknown alkane | 970 | ug/kg | |
| Unknown alkane | 1100 | ug/kg | |
| Unknown | 910 | ug/kg | |
| Unknown alkane | 770 | ug/kg | |
| Unknown alkane | 790 | ug/kg | |
| Unknown alkane | 470 | ug/kg | |
| Unknown alkane | 550 | ug/kg | |
| Unknown hopane | 430 | ug/kg | |
| Unknown alkane | 370 | ug/kg | |
| Unknown | 400 | ugʻ/kg | |
| | | J. J | |

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Rev 230787

T-4153



Semivolatile Organics

Method 8270

Client Name: Gram, Inc. Client ID: 00490001 (3.00, 6.00,)

077730-0004-SA Lab ID:

Received: 17 SEP 94 Analyzed: 06 OCT 94 Sampled: 12 SEP 94 Prepared: 21 SEP 94 SOIL Matrix: Authorized: 17 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit |
|--|--|---|---|
| Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic acid | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 0.74 0.74 0.74 0.74 0.74 0.74 1.7 |
| Benzyl alcohol 4-Bromophenyl phenyl ether Butyl benzyl phthalate 4-Chloroaniline 2,2'-Oxybis(1-chloropropane) bis(2-Chloroethoxy)- | ND ND ND ND | mg/kg mg/kg mg/kg mg/kg | 0.74 0.74 1.4 0.74 |
| methane bis(2-Chloroethyl) ether 4-Chloro-3-methylphenol 2-Chloronaphthalene 2-Chlorophenol | ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 0.74 1.4 0.74 0.35 |
| 4-Chlorophenyl phenyl ether Chrysene Di-n-butyl phthalate Dibenz(a,h)anthracene Dibenzofuran 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene 3,3'-Dichlorobenzidine 2,4-Dichlorophenol Diethyl phthalate 2,4-Dimethylphenol Dimethyl phthalate | ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 0.74 0.74 0.74 0.74 0.74 0.74 1.4 0.35 0.74 |
| 4,6-Dinitro- 2-methylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene Di-n-octyl phthalate | ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg | 3.5 3.5 0.74 0.74 |

(continued on following page)

ND = Not detected NA = Not applicable

Approved By: Steve Rogers Reported By: Donald Taylor



Semivolatile Organics

Method 8270

(3.00, 6.00,)

Client Name: Gram, Inc. Client ID: 00490001 Lab ID: 077730-0004-SA

Received: 17 SEP 94 Analyzed: 06 OCT 94 Sampled: 12 SEP 94 Prepared: 21 SEP 94 Matrix: SOIL Authorized: 17 SEP 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note J: Result is detected below the reporting limit or is an estimated concentration.

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Rev 230787

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QuanterraEnvironmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.

Client ID: 00490001 (3.00,6.00,)

Lab ID: 077730-0004-SA

Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

| Parameter | Result | Dry Weight Units | Reporting Limit | |
|--|---|---|--|---|
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodiphenylamine | ND ND ND ND ND ND ND ND ND ND ND ND ND N | mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74 | J |
| N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND O.046 ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.74 3.5 0.74 0.35 0.74 0.74 3.5 | J |
| Surrogate | Recovery | | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 83 87 124 92 85 100 | % % % % % | | |

(continued on following page)

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers

Semivolatiles Library Search (20 Compound TID)



Method 8270

Client Name: Gram, Inc. Client ID: 00490001 (3.00, 6.00,)

077730-0004-SA Lab ID:

Sampled: 12 SEP 94 Prepared: NA Received: 17 SEP 94 Analyzed: 06 OCT 94 Matrix: SOIL Authorized: 17 SEP 94

| Danamatan | Result | Units | Reporting Limit |
|-----------------------------|--------|-------|--------------------|
| Parameter | Kesuit | OHIES | LIMIT |
| Heptane, 2,4-dimethyl- | 370 | ug/kg | *** |
| Octane, 3-methyl- | 240 | ug/kg | |
| Unknown lactone | 410 | ug/kg | |
| Unknown ketone | 1600 | ug/kg | |
| Unknown oxygenated compound | 1900 | ug/kg | |
| Unknown oxygenated compound | 6300 | ug/kg | |
| Unknown alkane | 240 | ug/kg | |
| Sulfur, mol. (S8) | 7600 | ug/kg | |
| Unknown alkane | 590 | ug/kg | |
| Unknown alkane | 950 | ug/kg | |
| Pentacosane | 1500 | ug/kg | |
| Unknown alkane | 1000 | ug/kg | |
| Unknown alkane | 1500 | ug/kg | |
| Unknown | 690 | ug/kg | |
| Unknown alkane | 1000 | ug/kg | |
| Unknown alkane | 930 | ug/kg | |
| Unknown alkane | 600 | ug/kg | |
| Unknown alkane | 630 | ug/kg | |
| Unknown alkane | 250 | ug/kg | |
| Unknown | 280 | ug/kg | |

ND = Not detected NA = Not applicable

Reported By: Donald Taylor

Approved By: Steve Rogers



QC LOT ASSIGNMENT REPORT Semivolatile Organics by GC/MS

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|-----------------------------|-----------|-------------|------------------------|------------------------------|
| 077730-0001-SA | SOIL | 8270-IRPSL | 21 SEP 94-11A | 21 SEP 94-11A |
| 077730-0004-SA | SOIL | 8270-IRPSL | 21 SEP 94-11A | 21 SEP 94-11A |

I-458



METHOD BLANK REPORT Semivolatile Organics by GC/MS

| Analyte | Result | Units | Reporting Limit |
|---|---------------|----------------|--------------------|
| Test: 8270-IRPMS-L-S | | | |
| Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: | 21 SEP 94-11A | | |
| Acenaphthene Acenaphthylene | ND ND | mg/kg mg/kg | 0.70 0.70 |
| Anthracene | ND | mg/kg | 0.70 |
| Benzo(a)anthracene | ND | mg/kg | 0.70 |
| Benzo(a)pyrene | ND ND | mg/kg mg/kg | 0.70 0.70 |
| Benzo(b)fluoranthene Benzo(g,h,i)perylene | ND | mg/kg | 0.70 |
| Benzo(k)fluoranthene | ND | mg/kg | 0.70 |
| Benzoic acid | ND | mg/kg | 1.6 |
| Benzyl alcohol | ND | mg/kg | 1.3 |
| 4-Bromophenyl phenyl ether | ND | mg/kg | 0.70 |
| Butyl benzyl phthalate | ND | mg/kg | 0.70 |
| 4-Chloroaniline | ND | mg/kg | 1.3 |
| 2,2'-Oxybis(1-chloropropane) | ND | mg/kg | 0.70 |
| bis(2-Chloroethoxy)- methane | ND | mg/kg | 0.70 |
| bis(2-Chloroethyl) ether | ND | mg/kg | 0.70 |
| 4-Chloro-3-methylphenol | ND | mg/kg | 1.3 |
| 2-Chloronaphthalene | ND | mg/kg | 0.70 |
| 2-Chlorophenol | ND | mg/kg | 0.33 |
| 4-Chlorophenyl phenyl ether | ND | mg/kg | 0.70 |
| Chrysene | ND | mg/kg | 0.70 |
| Di-n-butyl phthalate | ND | mg/kg | 0.70 |
| Dibenz(a,h)anthracene | ND | mg/kg | 0.70 |
| Dibenzòfurán | ND ND | mg/kg | 0.70 0.70 |
| 1,2-Dichlorobenzene 1,3-Dichlorobenzene | ND ND | mg/kg mg/kg | 0.70 |
| 1,4-Dichlorobenzene | ND | mg/kg | 0.70 |
| 3,3'-Dichlorobenzidine | ND | mg/kg | 1.3 |
| 2,4-Dichlorophenol | ND | mg/kg | 0.33 |
| Diethyl phthalate | ND | mg/kg | 0.70 0.33 |
| 2,4-Dimethylphenol | ND ND | mg∕kg mg/kg | 0.33 |
| Dimethyl phthalate 4,6-Dinitro- | 110 | ""3/ N3 | 0.70 |
| 2-methylphenol | ND | mg/kg | 3.3 |
| 2,4-Dinitrophenol | ND | mg/kg | 3.3 |
| 2,4-Dinitrotoluene | ND ND | mg/kg | 0.70 0.70 |
| 2,6-Dinitrotoluene Di-n-octyl phthalate | ND ND | mg/kg mg/kg | 0.70 |
| DI-11-UCLY I PHILITATE | NU | ™3/ ™ 3 | |



METHOD BLANK REPORT Semivolatile Organics by GC/MS (cont.)

| Analyte | Result | Units | Reporting Limit |
|--|--|--|--|
| Test: 8270-IRPMS-L-S Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: 21 SEP | EP 94-1 1A | | |
| bis(2-Ethylhexyl)- phthalate Fluoranthene Fluorene Hexachlorobenzene Hexachlorobentadiene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone 2-Methylnaphthalene 2-Methylphenol 4-Methylphenol Naphthalene 2-Nitroaniline 3-Nitroaniline 4-Nitrobenzene 2-Nitrophenol 4-Nitrosodiphenylamine | ND ND ND ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kkg mg/kkg mg/kkg | 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.70 |
| N-Nitroso-di- n-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1,2,4-Trichlorobenzene 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol | ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 0.70 3.3 0.70 0.33 0.70 0.70 3.3 0.33 |



LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

Project: 077730

Category: 8270-IRPSL Semivolatile Organics (Contain all compounds for IRPMS Low soil)

Matrix: SOIL

21 SEP 94-11A QC Run: 21 SEP 94-11A QC Lot:

Concentration Units: mg/kg

| Analyte | Concentra Spiked M | | Accur LCS | acy(%) Limits |
|---|---|--------------|--------------|------------------|
| | • | | | |
| Pheno1 | 6.70 | 4.95 | 74 | 41-123 |
| bis(2-Chloroethyl) ether | 3.30 | 2.63 | 80 | 43-117 |
| 2-Chlorophenol | 6.70 | 5.00 | 75 | 44-116 |
| 1,3-Dichlorobenzene | 3.30 | 2.62 | 79 70 | 39-106 |
| 1,4-Dichlorobenzene | 3.30 | 2.61 | 79 | 40-106 |
| Benzyl alcohol | 3.30 | 2.88 | 87 | 37-125 |
| 1,2-Dichlorobenzene | 3.30 | 2.69 | 82 75 | 40-107 44-128 |
| 2-Methylphenol | 6.70 | 5.01 | /5 | 44-120 |
| 2,2'-0xybis(1- | 3.30 | 2.71 | 82 | 38-116 |
| chloropropane) | 6.70 | 5.55 | 83 | 36-138 |
| 4-Methylphenol | 6.70 | 5.55 | 65 | 30-130 |
| N-Nitroso-di- | 3.30 | 2.92 | 88 | 43-123 |
| n-propylamine Hexachloroethane | 3.30 | 2.67 | 81 | 39-106 |
| Nitrobenzene | 3.30 | 2.83 | 86 | 35-180 |
| Isophorone | 3.30 | 2.30 | 70 | 20-134 |
| 2-Nitrophenol | 6.70 | 5.00 | , 75 | 40-128 |
| 2,4-Dimethylphenol | 6.70 | 5.01 | 75 | 38-127 |
| Benzoic acid | 6.70 | ND | NC | 1-137 |
| bis(2-Chloroethoxy)- | • | | | |
| methane | 3.30 | 2.67 | 81 | 40-117 |
| 2,4-Dichlorophenol | 6.70 | 4.74 | 71 | 34-129 |
| 1,2,4-Trichlorobenzene | 3.30 | 2.54 | 77 | 36-114 |
| Naphthalene | 3.30 | 2.33 | 71 | 41-108 |
| 4-Chloroaniline | 3.30 | 1.13 | 34 | 0-63 |
| Hexachlorobutadiene | 3.30 | 2.63 | 80 | 33-114 |
| 4-Chloro-3-methylphenol | 6.70 | 5.96 | 89 | 33-143 |
| 2-Methylnaphthalene | 3.30 | 2.44 | 74 | 0-197 |
| Hexachlorocyclopentadiene | 3.30 | 2.30 | 70 | 29-111 |
| 2,4,6-Trichlorophenol | 6.70 | 5.21 | 78 | 41-132 |
| 2,4,5-Trichlorophenol | 6.70 | 5.38 | 80 | 36-129 |
| 2-Chloronaphthalene | 3.30 | 2.61 | 79 | 40-119 |
| 2-Nitroaniline | 3.30 | 3.26 | 99 85 | 45-129 |
| Dimethyl phthalate | 3.30 | 2.80 | | 48-116 |
| Acenaphthylene | 3.30 | 2.45 | 74 96 | 43-114 44-127 |
| 2,6-Dinitrotoluene | 3.30 | 3.17 | 180 | 0-119 |
| 3-Nitroaniline | 3.30 3.30 | 5.93 2.42 | 73 | 41-113 |
| Acenaphthene | 6.70 | 6.60 | 99 | 0-139 |
| 2,4-Dinitrophenol | 6.70 | 8.08 | 121 | 41-144 |
| <pre>4-Nitrophenol N = Not Calculated, calculation not a</pre> | | 0.00 | **1 | 11 177 |
| N = Not Carculated, Carculation not a N = Not Detected | ppi icabie. | | | |
| ת - חטנ טבנבניבע | | | | |

ND = Not Detected



(cont.)

LABORATORY CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

Project: 077730

(cont.)

Category: 8270-IRPSL Semivolatile Organics (Contain all compounds for IRPMS Low soil)

Matrix: SOIL

21 SEP 94-11A QC Run: 21 SEP 94-11A QC Lot:

Concentration Units: mg/kg

| | Concent | ration | Accuracy(%) | | |
|--|--|--|--|--|---------|
| Analyte | | Measured | LCS | Limits | (cont.) |
| Dibenzofuran 2,4-Dinitrotoluene Diethyl phthalate Fluorene | 3.30 3.30 3.30 3.30 | 2.61 3.39 2.91 2.59 | 79 103 88 78 | 42-116 43-129 46-118 43-117 | |
| 4-Chlorophenyl phenyl ether 4-Nitroaniline 4,6-Dinitro- | 3.30 3.30 | 2.60 4.65 | 79 141 | 41-120 0-189 | |
| 2-methylphenol N-Nitrosodiphenylamine | 6.70 3.30 | 6.87 2.79 | 103 85 | 0-181 9-241 | |
| 4-Bromophenyl phenyl ether Hexachlorobenzene Pentachlorophenol Phenanthrene Anthracene Di-n-butyl phthalate Fluoranthene Pyrene Butyl benzyl phthalate 3,3'-Dichlorobenzidine Benzo(a)anthracene | 3.30 6.70 3.30 3.30 3.30 3.30 3.30 3.30 3.30 | 2.69 2.71 6.42 2.49 2.36 2.85 2.47 2.56 3.18 2.59 2.57 | 82 96 75 72 86 75 78 96 78 78 | 44-130 44-126 52-115 50-131 7-141 | |
| Chrysene bis(2-Ethylhexyl)- phthalate Di-n-octyl phthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Benzo(g,h,i)perylene | 3.30 3.30 3.30 3.30 3.30 3.30 3.30 | 2.80 2.58 2.85 1.99 2.37 2.54 2.42 | 85 78 86 60 72 77 73 77 | 48-130 44-137 44-136 43-127 46-132 47-133 | |

ND = Not Detected



SINGLE CONTROL SAMPLE REPORT Semivolatile Organics by GC/MS

| Analyte | Concentration Spiked Me | tion easured | Accur SCS | acy(%) Limits |
|---|--------------------------------------|--------------------------------------|--------------------------------|--|
| Category: 8270-IRPSL Matrix: SOIL QC Lot: 21 SEP 94-11A QC Run: 21 SE Concentration Units: mg/kg | P 94-11A | | | |
| Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 Phenol-d5 2-Fluorophenol 2,4,6-Tribromophenol | 0.33 0.33 0.33 0.67 0.67 | 0.32 0.33 0.39 0.67 0.67 | 98 100 118 100 100 | 38-116 42-120 40-141 32-131 23-184 20-109 |

::uanxerra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.

(3.00,6.00,) 00460001 Client ID:

077730-0001-SA Lab ID:

Received: 17 SEP 94 Analyzed: See Below Sampled: 12 SEP 94 SOIL Matrix: Prepared: See Below 17 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|--|---|--|---|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 11000 ND 5.9 134 ND ND 18300 14.2 5.7 191 27600 27.2 3660 408 ND ND ND ND ND ND ND ND ND ND | mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/kk mg/k | 52.5 15.8 1.0 10.5 1.1 0.53 105 5.3 5.3 5.3 5.3 5.0 105 2.1 0.10 10.5 15.8 525 0.50 10.5 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Approved By: Mei Lai Reported By: Don Carney

METALS



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 00470001

(3.00, 6.00,)

Lab ID:

077730-0002-SA

SOIL Matrix:

Sampled: 12 SEP 94

Received: 17 SEP 94

Authorized:

17 SEP 94

Prepared: See Below

Analyzed: See Below

| Author Izeu. | 11 25 | J . | • | | | | |
|---|-------|--|--|--|--|--|---|
| Parameter | | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | | 11600 ND 7.2 130 ND ND 14300 19.5 7.1 208 30300 20.4 3880 445 ND ND ND 19.3 3210 ND ND 19.3 | mg/kkg mg/kkkg mg/kkkg mg/kkkg mg/kkkg mg/kkkg mg/kkkg mg/kkkkg mg/kkkkg mg/kkkkg mg/kkkkg mg/kkkkg | 52.8 15.8 0.50 10.6 1.1 0.53 106 5.3 5.3 5.3 5.3 10.0 106 2.1 0.10 10.6 15.8 528 1.0 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 7841 6010 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787

T-466





(Soil/Solid - Total)

METALS

Client Name: Gram, Inc.

Client ID: 00470002 (3.00,6.00,)

Lab ID: 077730-0003-SA

Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Analyzed Date Date | |
|---|--|---|--|--|---|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 8710 ND 5.5 115 ND 14500 17.3 6.7 1520 27300 20.5 3280 420 ND ND 17.1 2530 ND ND ND 17.1 2530 ND ND | mg/kg mg/kkg mg/kkkg mg/kkkkkkkkkkkkkkkk | 52.6 15.8 0.50 10.5 1.1 0.53 105 5.3 5.3 5.3 2.5 105 2.1 0.10 10.5 15.8 526 1.0 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7471 6010 6010 7740 6010 6010 7841 6010 6010 | 23 SEP 94 28 SEP 94 23 SEP 94 26 SEP 94 23 SEP 94 28 SEP 94 | |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney Approved By: Mei Lai

(Soil/Solid - Total)

Client Name: Gram, Inc.

(3.00,6.00,) 00490001 Client ID:

077730-0004-SA Lab ID:

Received: 17 SEP 94 Sampled: 12 SEP 94 SOIL Matrix: Analyzed: See Below Prepared: See Below 17 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|---|---|--|--|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 12800 ND 3.7 163 ND ND 27100 11.5 ND 22.8 12100 25.1 4160 257 ND ND ND ND ND ND ND 19.0 63.7 | mg/kgg/kgg/kkgg/kkgg/kkgg/kkgg/kkgg/kkg | 52.8 15.8 0.50 10.6 1.1 0.53 106 5.3 5.3 5.3 5.3 2.5 106 2.1 0.10 10.6 15.8 528 1.0 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note q: Post-digestion spike recovery fell between 40% and 85%

due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report. Rev 230787

I-468





(Soil/Solid - Total)

Client Name: Gram, Inc.

Client ID: 00760001 (3.00,6.00,)

Lab ID: 077730-0005-SA

Matrix: SOIL Sampled: 13 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|---|--|--|---|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 10000 ND 4.0 122 ND ND 35600 9.2 ND 11.3 10500 8.3 3700 214 ND ND ND ND ND ND ND ND ND | mg/kk kkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 53.0 15.9 0.50 10.6 1.1 0.53 106 5.3 5.3 5.3 1.0 106 2.1 0.10 10.6 15.9 530 1.0 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note 1: Reporting limit raised as a dilution was performed because

the initial post-digest spike recovery fell between 40%

and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787

T- 469



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 00090001 (3.00,6.00,)

077730-0006-SA Lab ID:

Received: 17 SEP 94 Sampled: 14 SEP 94 Prepared: See Below SOIL Matrix: Analyzed: See Below 17 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|---|--|--|---|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 12300 ND 5.2 139 ND ND 32900 11.0 ND 9.0 12000 10.2 4380 266 ND ND ND ND ND ND 10.0 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.3 10. | mg/kkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 54.4 16.3 0.50 10.9 1.1 0.54 109 5.4 5.4 5.4 1.0 109 2.2 0.10 10.9 16.3 544 0.50 5.4 5.4 5.2 0.10 10.9 | 6010 6010 7060 6010 6010 6010 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 28 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note R: Raised reporting limit(s) due to high analyte level(s).

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



wuanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 00130001 (6.00, 9.00,)Client ID:

Lab ID:

077730-0007-SA

SOIL Matrix: Authorized: 17 SEP 94

Sampled: 14 SEP 94 Prepared: See Below Received: 17 SEP 94 Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|---|--|---|--|---|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 10500 ND 4.2 140 ND ND 36500 9.8 ND 7.6 10900 7.1 4030 242 ND ND ND ND ND ND ND 19.5 28.6 | mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mgg/kk mgg/kk mg/kk mg/kk mg/kk mg/kk mg/kk | 54.2 16.3 2.0 10.8 1.1 0.54 108 5.4 5.4 5.4 1.0 108 2.2 0.10 10.8 16.3 542 1.0 5.4 5.4 | 6010 6010 7060 6010 6010 6010 6010 6010 | 23 SEP 94 | 28 SEP 94 28 SEP 94 27 SEP 94 28 SEP 94 27 SEP 94 28 SEP 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note p: Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

Note q: Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



(Soil/Solid - Total)

Client Name: Gram, Inc.

00250001 Client ID:

(0.00,3.00,)

lab ID: Matrix:

077730-0008-SA

SOIL

Sampled: 14 SEP 94 Prepared: See Below

Received: 17 SEP 94 Analyzed: See Below

17 SEP 94 Authorized: Prepared Analyzed Analytical Dry Weight Reporting Date Date Method Limit Units Result Parameter 23 SEP 94 28 SEP 94 6010 53.2 12800 mq/kq Aluminum 23 SEP 94 28 SEP 94 6010 15.9 ND mq/kg Antimony 23 SEP 94 29 SEP 94 1 7060 2.0 5.3 mg/kg Arsenic 28 SEP 94 23 SEP 94 6010 10.6 155 mg/kg Barium SEP 94 28 SEP 94 23 6010 mg/kg 1.1 ND Bervllium SEP 94 28 SEP 94 23 6010 0.53 mg/kg ND Cadmium SEP SEP 94 28 23 106 6010 mg/kg 34100 Calcium SEP 23 SEP 94 28 94 6010 5.3 mg/kg 11.2 Chromium SEP 94 SEP 94 28 23 6010 5.3 5.9 mg/kg Cobalt 28 SEP 94 SEP 94 23 5.3 6010 10.0 mg/kg Copper 28 SEP SEP 94 94 23 5.3 6010 12400 mq/kg Iron 26 SEP 94 R SEP 94 23 7421 1.0 10.0 mg/kg Lead 23 SEP 94 28 SEP 94 6010 106 4520 mg/kg Magnesium SEP 94 23 SEP 94 28 2.1 6010 mq/kg 265 Manganese SEP 94 23 SEP 94 23 7471 0.10 mg/kg ND Mercury SEP 28 SEP 94 94 23 6010 10.6 mq/kg ND Molybdenum SEP 94 28 23 SEP 94 15.9 6010 mg/kg ND Nickel SEP 94 23 SEP 28 94 mg/kg 532 6010 3240 Potassium 28 SEP 94 23 SEP 94 7740 1.0 mg/kg ND Selenium 23 SEP 94 28 SEP 94 5.3 6010 mg/kg ND Silver SEP 94 23 SEP 94 28 532 6010 ND mg/kg Sodium 23 SEP 94 24 SEP 94 0.50 7841 ND mg/kg Thallium 23 SEP 94 28 SEP 94 10.6 6010 19.4 mg/kg Vanadium SEP 94 28 SEP 94 6010 2.1 34.9 mg/kg Zinc

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note p: Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



(Soil/Solid - Total)

Client Name: Gram, Inc.

(0.00, 3.00,)00350001 Client ID:

077730-0009-SA Lab ID:

Received: 17 SEP 94 Sampled: 14 SEP 94 SOIL Matrix: Analyzed: See Below Prepared: See Below Authorized: 17 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|--|---|--|---|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 11200 ND 4.1 169 ND ND 34300 10.4 ND 10.0 11500 11.3 4380 272 ND ND ND ND ND ND ND ND ND ND | mg/kyggmg/kkggmg/kkggmg/kkggmg/kkggmg/kkggmg/kkggmg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kkggmgg/kggm | 52.7 15.8 2.0 10.5 1.1 0.53 105 5.3 5.3 5.3 1.0 105 2.1 0.10 10.5 15.8 527 1.0 5.3 527 1.0 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 | 23 SEP 94 23 SEP 94 | 28 SEP 94 29 SEP 94 28 SEP 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R: Raised reporting limit(s) due to high analyte level(s).

Note p: Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

Note q: Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Approved By: Mei Lai Reported By: Don Carney

(Soil/Solid - Total)

Client Name: Gram, Inc.

01360001 Client ID:

(2.50,6.00,)

Lab ID:

077730-0010-SA

Matrix:

SOIL

Sampled: 15 SEP 94

Received: 21 SEP 94

17 SEP 94 Authorized:

Prepared: See Below

Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Analyzed Date Date |
|---|--|---|---|--|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 6760 ND 2.3 99.9 ND 30600 6.0 ND 5.3 6660 4.7 2510 109 ND ND ND ND ND ND ND ND 1370 ND ND ND ND ND 1370 ND ND ND ND ND ND ND ND ND ND | mg/kgg mg/kkgg mgg/kkkgg/kkkgg mgg/kkkgg/kkkgg/kkkgg mgg/kkkgg mgg/kk mgg/kkgg mgg/kkgg mgg/kkgg mg/kkgg | 51.9 15.6 2.1 10.4 1.0 0.52 104 5.2 5.2 5.2 0.52 104 2.1 0.10 10.4 15.6 519 1.0 5.2 519 0.50 10.4 2.1 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 7841 6010 6010 | 23 SEP 94 28 SEP 94 23 SEP 94 29 SEP 94 23 SEP 94 28 SEP 94 |

Percent Moisture is 4%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because

the initial post-digest spike recovery fell between 40%

and 85% due to matrix interference.

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



(Soil/Solid - Total)

Client Name: Gram, Inc.

(2.50,6.00,) 01400001 Client ID:

077730-0011-SA Lab ID:

Received: 21 SEP 94 Sampled: 15 SEP 94 Matrix: SOIL Analyzed: See Below Prepared: See Below 17 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|---|---|--|--|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 8010 ND 4.3 135 ND ND 34900 7.6 ND ND 8010 5.8 2900 143 ND ND ND ND ND ND ND ND ND ND ND ND ND | mg/kk kkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkkk | 54.7 16.4 2.2 10.9 1.1 0.55 109 5.5 5.5 5.5 0.55 109 2.2 0.11 10.9 16.4 547 1.1 5.5 547 0.50 10.9 2.2 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7841 6010 6010 6010 | 23 SEP 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | 4 28 SEP 94 4 28 SEP 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note 1: Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 02150001 Lab ID: 077730-0012-SA

(2.50, 5.00,)

Lab ID:

SOIL Matrix: Authorized.

Sampled: 15 SEP 94 Prepared: See Below 17 SEP 94

Received: 21 SEP 94

Analyzed: See Below

| Authorized: | 1/ 3EF | 74 | / Cpui c | | | | |
|---|--------|--|---|---|--|--|--|
| Parameter | | Result | .Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | | 5280 ND 2.5 117 ND ND 57100 ND ND ND S370 3.3 2080 71.1 ND ND ND ND ND ND ND ND ND ND ND ND ND | mg/kkg mg/kkgg mgg/kkkggg/kkk mgg/kkggg/kkk mgg/kkggg/kkk mgg/kk mgg/kkgg mgg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkgggg/kkggggg/kkggggg/kkggggg/kkggggg/kkggggg/kkggggg/kkggggg/kkgggggg | 53.2 16.0 2.1 10.6 1.1 0.53 106 5.3 5.3 0.53 106 2.1 0.11 10.6 16.0 532 1.1 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 | 23 SEP 94 23 SEP 94 24 SEP 94 25 SEP 94 25 SEP 94 26 SEP | 28 SEP 94 29 SEP 94 28 SEP 94 28 SEP 94 28 SEP 94 28 SEP 94 4 28 SEP 94 |

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai



(Soil/Solid - Total)

Client Name: Gram, Inc.

02250001 077730-0013-SA (3.00, 6.00,)Client ID:

Lab ID:

Sampled: 15 SEP 94 Prepared: See Below Received: 21 SEP 94 SOIL Matrix: Analyzed: See Below 17 SEP 94 Authorized:

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--|--|---|--|--|--|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 7500 ND 3.1 95.2 ND ND 21200 8.0 ND 6.1 7710 4.9 2490 136 ND ND ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kkg mg/kkg mg/kkg mg/kk mgg/kk mgg/kk mgg/kk mgg/kk mg/kg mg/kg | 52.5 15.8 0.53 10.5 1.1 0.53 105 5.3 5.3 5.3 6.53 105 2.1 0.11 10.5 15.8 525 1.1 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 | 23 SEP 96 23 SEP 96 | 4 28 SEP 94 4 26 SEP 94 4 28 SEP 94 |

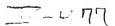
Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note G: Reporting Limit raised due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai





QC LOT ASSIGNMENT REPORT Metals Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|---|--|--|--|
| Sample Number 077730-0001-SA 077730-0001-SA 077730-0001-SA 077730-0001-SA 077730-0001-SA 077730-0002-SA 077730-0002-SA 077730-0002-SA 077730-0002-SA 077730-0002-SA 077730-0002-SA 077730-0003-SA 077730-0003-SA 077730-0003-SA 077730-0003-SA 077730-0003-SA 077730-0004-SA 077730-0004-SA 077730-0004-SA 077730-0004-SA 077730-0004-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0005-SA 077730-0006-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 7471-IRP-S 7421-IRP-S 7060-IRP-S 7740-IRP-S 1CP-IRP-S 7841-IRP-S 7421-IRP-S 7421-IRP-S 7060-IRP-S 1CP-IRP-S 7740-IRP-S 7471-IRP-S 7471-IRP-S 7421-IRP-S 7421-IRP-S 7740-IRP-S 7740-IRP-S 7600-IRP-S 7740-IRP-S 7600-IRP-S 7741-IRP-S | | |
| 077730-0007-SA 077730-0007-SA 077730-0008-SA | SOIL SOIL SOIL | ICP-IRP-S 7841-IRP-S 7471-IRP-S | 23 SEP 94-BX 23 SEP 94-BX | 23 SEP 94-BX 23 SEP 94-BX |
| 077730-0008-SA 077730-0008-SA | SOIL SOIL | 7421-IRP-S 7060-IRP-S 7740-IRP-S | 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX | 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX |
| 077730-0008-SA 077730-0008-SA | SOIL SOIL | ICP-IRP-S | 23 SEP 94-BX | 23 SEP 94-BX |



QC LOT ASSIGNMENT REPORT Metals Analysis and Preparation (cont.)

| Sample Number QC Matrix QC Category 077730-0008-SA SOIL 7841-IRP-S | 23 SEP 94-BX 23 SEP 94-BX | 23 SEP 94-BX 23 SEP 94-BX |
|---|---|--|
| 077730-0009-SA SOIL 7471-IRP-S 077730-0009-SA SOIL 7060-IRP-S 077730-0009-SA SOIL 7740-IRP-S 077730-0009-SA SOIL 1CP-IRP-S 077730-0009-SA SOIL 7841-IRP-S 077730-0010-SA SOIL 7471-IRP-S 077730-0010-SA SOIL 7060-IRP-S 077730-0010-SA SOIL 7740-IRP-S 077730-0010-SA SOIL 7740-IRP-S 077730-0010-SA SOIL 7740-IRP-S 077730-0010-SA SOIL 7841-IRP-S 077730-0011-SA SOIL 7471-IRP-S 077730-0011-SA SOIL 7421-IRP-S 077730-0011-SA SOIL 7740-IRP-S 077730-0011-SA SOIL 7740-IRP-S 077730-0012-SA SOIL 7471-IRP-S 077730-0012-SA SOIL 7421-IRP-S 077730-0012-SA SOIL 7740-IRP-S 077730-0012-SA SOIL 7740-IRP-S 077730-0012-SA SOIL 7740-IRP-S 0777 | 23 SEP 94-BX | 23 SEP 94-BX |
| | 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX | 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX 23 SEP 94-BX |



| Analyte | Result | Units | Reporting Limit |
|---|--|---|---|
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Mercury | : 23 SEP 94-BX | mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Lead | : 23 SEP 94-BX ND | mg/kg | 0.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Arsenic | : 23 SEP 94-BX | mg/kg | 0.50 |
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Selenium | : 23 SEP 94-BX | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Aluminum Antimony | ND ND | mg/kg mg/kg | 50.0 15.0 |
| Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum | ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 10.0 1.0 0.50 100 5.0 5.0 5.0 100 2.0 10.0 |



| Analyte | Result | Units | Reporting Limit |
|---|---|--|--|
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Run Nickel Potassium Silver Sodium Vanadium Zinc | : 23 SEP 94-BX ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 15.0 500 5.0 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Run Thallium | : 23 SEP 94-BX ND | mg/kg | 0.50 |
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Run Mercury | : 23 SEP 94-BX ND | mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Run Lead | : 23 SEP 94-BX | mg/kg | 0.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX QC Rur Arsenic | : 23 SEP 94-BX | mg/kg | 0.50 |



| Analyte | | | Resu | ılt | Units | Reporting Limit |
|--|---------|--------|---------|---|---|--|
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX Selenium | QC Run: | 23 SEP | 94 - BX | ND | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP | 94-BX | | | |
| Aluminum Antimony Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum Nickel Potassium Silver Sodium Vanadium Zinc | | | | ND ND ND ND ND ND ND ND ND ND ND ND ND N | mg/kg | 50.0 15.0 10.0 1.0 0.50 100 5.0 5.0 5.0 10.0 15.0 500 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP | 94 - BX | | | |
| Thallium | | | | ND | mg/kg | 0,50 |



| Analyte | | Resu | lt Units | Reporting Limit |
|--|---------|--------------|---|--|
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP 94-BX | | |
| Nickel Potassium Silver Sodium Vanadium Zinc | | | ND mg/kg ND mg/kg ND mg/kg ND mg/kg ND mg/kg ND mg/kg | 15.0 500 5.0 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX Thallium | QC Run: | 23 SEP 94-BX | ND mg/kg | 0.50 |
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP 94-BX | ND mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX Lead | QC Run: | 23 SEP 94-BX | ND mg/kg | 0.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX Arsenic | QC Run: | | ND mg/kg | 0.50 |

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| Analyte | | Resu | ılt | Units | Reporting Limit |
|--|---------|--------------|-----|---|--|
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX Selenium | QC Run: | 23 SEP 94-BX | ND | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP 94-BX | | | |
| Aluminum Antimony Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum Nickel Potassium Silver Sodium Vanadium Zinc | | | | mg/kg | 50.0 15.0 10.0 1.0 0.50 100 5.0 5.0 10.0 10 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 23 SEP 94-BX | QC Run: | 23 SEP 94-BX | | | |
| Thallium | | | ND | mg/kg | 0.50 |



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

Project: 077730

Category: 7471-IRP-S Mercury by CVAA

STATIC QC LIMITS - DO NOT UPDATE

SOIL Matrix:

QC Run: 23 SEP 94-BX 23 SEP 94-BX OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte 75-125 110 35.2

32.0

Mercury

Category: 7421-IRP-S Lead, Furnace AA

STATIC QC LIMTS - DO NOT UPDATE

SOIL Matrix:

QC Run: 23 SEP 94-BX 23 SEP 94-BX QC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration LCS Limits Spiked Measured **Analyte** 98 65 - 13549.6 50.9 Lead

Category: 7060-IRP-S Arsenic, Furnace AA

STATIC QC LIMTS - DO NOT UPDATE

Matrix:

QC Run: 23 SEP 94-BX 23 SEP 94-BX OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration Limits LCS Spiked Measured Analyte 121 . 75-125 87.2 72.1 Arsenic

Category: 7740-IRP-S Selenium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL

23 SEP 94-BX QC Run: 23 SEP 94-BX OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte 93 70-130 74.2 69.2 Selenium

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation Project: 077730

(cont.)

Category: ICP-IRP-S ICP Metals

STATIC QC LIMITS - DO NOT UPDATE

SOIL Matrix:

23 SEP 94-BX

QC Run: 23 SEP 94-BX

QC Lot: Concentration Units: mg/kg

| Aluminum Aluminum Antimony Arsenic Arsenic Barium Beryllium Calcium Calcium Cadmium Att. 45.6 Copper Cobalt Iron. Magnesium Manganese Molybdenum Pofassium Manganese Molybdenum Pofassium Lead Nickel Selenium Thallium Aluminum Associated Arsenic A | Applyte | Concentr Spiked | ation Measured | Accura LCS | cy(%) Limits |
|--|--|---|---|--|--|
| Zinc | Antimony Arsenic Barium Beryllium Calcium Cadmium Chromium Copper Cobalt Iron Magnesium Manganese Molybdenum Potassium Lead Nickel Selenium Silver Sodium Thallium | 3650 75.0 72.1 64.8 26.7 2330 61.6 44.1 78.1 177 7360 2550 141 104 3310 50.9 110 74.2 71.7 346 64.1 | 3690 68.3 73.4 67.8 242.0 63.6 242.0 63.6 81.3 7680 2650 144 109 348.1 80.6 348.1 80.6 348.1 80.6 348.1 80.6 348.1 80.6 81.5 80.6 81.5 80.6 81.5 80.6 81.5 80.6 81.5 80.6 80.6 80.6 80.6 80.6 80.6 80.6 80.6 | 101 91 102 105 108 104 102 103 104 106 104 105 105 108 109 99 | 75-140 50-150 75-125 75-125 75-125 75-125 75-125 |

Category: 7841-IRF-S Thallium. Furnace AA

STATIC QU LIMITS - DO NOT UPDATE

SSIL Matrix:

QC Lot:

23 SEP 94-BX QC Run: 23 SEP 94-BX

Concentration Units: mg/kg

| Analyte | | Concentration Spiked Measured | | |
|--|------|----------------------------------|-----|--------|
| Thallium | 64.1 | 65.7 | 103 | 65-135 |
| 1114 1 1 1 1 1 1 1 1 1 | | | | |

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

486



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00460001 (3.00, 6.00,)

Lab ID:

077730-0001-SA

Matrix: SOIL Authorized:

17 SEP 94

Sampled: 12 SEP 94 Prepared: See Below

Received: 17 SEP 94

Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.53 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 2.5 | mg/kg | 0.26 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey

The cover letter is an integral part of this report. Rev 230787

T + 487



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00470001

(3.00, 6.00,)

077730-0002-SA Lab ID:

Received: 17 SEP 94 Sampled: 12 SEP 94 Matrix: SOIL Prepared: See Below Analyzed: See Below Authorized: 17 SEP 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.53 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 5.6 | mg/kg | 0.26 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00470002

(3.00, 6.00,)

077730-0003-SA Lab ID:

Matrix: Sampled: 12 SEP 94 SOIL Received: 17 SEP 94 17 SEP 94 Authorized: Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.53 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 6.3 | mg/kg | 0.26 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00490001

(3.00, 6.00,)

Lab ID: 077730-0004-SA

Sampled: 12 SEP 94 Received: 17 SEP 94 Matrix: SOIL Analyzed: See Below Authorized: 17 SEP 94 Prepared: See Below

Prepared Analyzed Dry Weight Reporting Analytical Limit Method Date Date Parameter Result Units 19 SEP 94 20 SEP 94 0.53 9012 Modified Cyanide, Total ND mg/kg Nitrate + Nitrite 10 OCT 94 10 OCT 94 0.26 353.2 Modified 2.1 mg/kg (as N)

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00760001 (3.00, 6.00,)

077730-0005-SA Lab ID:

Matrix: SOIL Sampled: 13 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Parameter Result Units Limit Method Date Date 9012 Modified 19 SEP 94 20 SEP 94 ND mg/kg 0.53 Cyanide, Total Nitrate + Nitrite 10 OCT 94 10 OCT 94 (as N) 0.26 353.2 Modified 3.7 mg/kg

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00090001 (3.00, 6.00,)

077730-0006-SA Lab ID:

Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.54 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 3.7 | mg/kg | 0.27 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 00130001 (6.00, 9.00,)

Lab ID: 077730-0007-SA

Received: 17 SEP 94 Matrix: SOIL Sampled: 14 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Dry Weight Reporting Prepared Analyzed Analytical Parameter Result Units Limit Method Date Date ND 0.54 19 SEP 94 20 SEP 94 Cyanide, Total mg/kg 9012 Modified Nitrate + Nitrite (as N) 4.8 10 OCT 94 10 OCT 94 mg/kg 0.27 353.2 Modified

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 00250001 (0.00,3.00,)

Lab ID: 077730-0008-SA

Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|-------------------------------------|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite | ND | mg/kg | 0.53 | 9012 Modified | 19 SEP 94 | 20 SEP 94 |
| (as N) | 1.0 | mg/kg | 0.27 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 00350001 (0.00,3.00,)

Lab ID: 077730-0009-SA

Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Parameter Result Units Limit Method Date Date Cyanide, Total Nitrate + Nitrite ND 19 SEP 94 20 SEP 94 mg/kg 0.53 9012 Modified 4.9 353.2 Modified 10 OCT 94 10 OCT 94 (as N) mg/kg 0.26

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

The cover letter is an integral part of this report.

Rev 230787

1. 495



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01360001 (2.50,6.00,)

Lab ID: 077730-0010-SA

Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Parameter Result Units Limit Method Date Date 23 SEP 94 29 SEP 94 ND 0.52 9012 Modified Cyanide, Total mg/kg Nitrate + Nitrite 353.2 Modified 10 OCT 94 10 OCT 94 1.4 0.26 (as N)mg/kg

Percent Moisture is 4%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 02150001 (2.50,5.00,)

Lab ID: 077730-0012-SA

Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Parameter Result Units Limit Method Date Date 23 SEP 94 29 SEP 94 ND mg/kg 0.53 9012 Modified Cyanide, Total Nitrate + Nitrite (as N) 1.0 mg/kg 0.27 353.2 Modified 10 OCT 94 10 OCT 94

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc.

Client ID: 01400001 (2.50,6.00,)

Lab ID: 077730-0011-SA

Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94 Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|--------|---------------------|--------------------|----------------------|------------------|------------------|
| Cyanide, Total Nitrate + Nitrite (as N) | ND | mg/kg | 0.55 | 9012 Modified | 23 SEP 94 | 29 SEP 94 |
| | 4.0 | mg/kg | 0.27 | 353.2 Modified | 10 OCT 94 | 10 OCT 94 |

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey



(Soil/Solid)

Client Name: Gram, Inc. Client ID: 02250001 02250001 (3.00, 6.00,)

Lab ID: 077730-0013-SA

Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94 17 SEP 94 Authorized: Prepared: See Below Analyzed: See Below

Dry Weight Reporting Analytical Prepared Analyzed Parameter Result Units Limit Method Date Date ND Cyanide, Total mg/kg 0.53 9012 Modified 23 SEP 94 29 SEP 94 Nitrate + Nitrite 0.58 (as N)mg/kg 0.26 353.2 Modified 10 OCT 94 10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Hamid Foolad

Approved By: Jennifer Kimzey



QC LOT ASSIGNMENT REPORT Wet Chemistry Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|---|---|--|--|--|
| 077730-0001-SA 077730-0001-SA 077730-0002-SA 077730-0002-SA 077730-0003-SA 077730-0003-SA 077730-0004-SA 077730-0005-SA 077730-0005-SA 077730-0006-SA 077730-0006-SA 077730-0007-SA 077730-0007-SA 077730-0008-SA 077730-0008-SA 077730-0008-SA 077730-0009-SA 077730-0010-SA 077730-0010-SA 077730-0011-SA 077730-0011-SA 077730-0012-SA 077730-0012-SA 077730-0013-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S N03&N02-S CN-IRP-S | 10 OCT 94-A 19 SEP 94-A 10 OCT 94-A 23 SEP 94-A 10 OCT 94-A 23 SEP 94-A | 10 OCT 94-A 19 SEP 94-A 10 OCT 94-A 10 OCT 94-A 23 SEP 94-A 23 SEP 94-A 23 SEP 94-A 23 SEP 94-A |



METHOD BLANK REPORT Wet Chemistry Analysis and Preparation

| Analyte | Result | Units | Reporting Limit |
|---|-------------|-------|--------------------|
| Test: NO3&NO2-S Matrix: SOIL QC Lot: 10 OCT 94-A QC Run: Nitrate + Nitrite (as N) | 10 OCT 94-A | mg/kg | 0.25 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: | 19 SEP 94-A | 3, 3 | |
| Cyanide, Total | ND ND | mg/kg | 0.50 |
| Test: NO3&NO2-S Matrix: SOIL QC Lot: 10 OCT 94-A QC Run: | 10 OCT 94-A | | |
| Nitrate + Nitrite (as N) | ND | mg/kg | 0.25 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: | 19 SEP 94-A | | |
| Cyanide, Total | ND | mg/kg | 0.50 |
| Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 23 SEP 94-A QC Run: | 23 SEP 94-A | | |
| Cyanide, Total | ND | mg/kg | 0.50 |



LABORATORY CONTROL SAMPLE REPORT

Wet Chemistry Analysis and Preparation

Project: 077730

Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.

Matrix: SOIL

QC Lot: 10 OCT 94-A QC Run: 10 OCT 94-A

Concentration Units: mg/kg

Analyte Concentration Accuracy(%)
Spiked Measured LCS Limits
Nitrate + Nitrite (as N) 2.50 2.62 105 75-125

Category: CN-IRP-S Cyanide

Matrix: SOIL

OC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A

Concentration Units: mg/kg

Concentration Accuracy(%)
Spiked Measured LCS Limits

Cyanide, Total 5.00 4.90 98 77-115

Category: CN-IRP-S Cyanide

Matrix: SOIL

QC Lot: 23 SEP 94-A QC Run: 23 SEP 94-A

Concentration Units: mg/kg

Concentration Accuracy(%)
Spiked Measured LCS Limits

Cyanide, Total 5.00 4.85 97 77-115

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

IDOA



Quanterra Incorporated 880 Riverside Parkway West Sacramento, California 95605

916 373-5600 Telephone 916 372-1059 Fax

October 31, 1994

QUANTERRA PROJECT NUMBER: 078162

PO/CONTRACT: 006

Jeff Johnson Gram, Inc. 8500 Menaul Blvd. NE, #B-370 Albuquerque, New Mexico 87112

Dear Mr. Johnson:

This report contains the analytical results for the two soil samples which were received under chain of custody by Quanterra West Sacramento on 13 October 1994. These samples are associated with your Kirtland AFB Project.

The case narrative is an integral part of this report.

Preliminary results were sent via facsimile on 19 and 31 October 1994.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana L. Brooks Project Manager

DLB/rhs

Enclosures

T. 503



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QUANTERRA PROJECT NUMBER 078162

Case Narrative

Quanterra's Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

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Includes Samples: 1 through 2

Sample Data Sheets Method Blank Report

Laboratory Control Sample Report (LCS)

General Inorganics - Method 353.2

Includes Samples: 1 through 2

Sample Data Sheets Method Blank Report

Laboratory Control Sample Report (LCS)



CASE NARRATIVE

QUANTERRA PROJECT NUMBER 078162

General Comments

A temperature blank was not associated with this batch of samples. The ambient cooler temperature was recorded as 4.0 deg C.

There were no anomalies associated with this report.

05



QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documentable quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.



SAMPLE DESCRIPTION INFORMATION for Gram, Inc.

| Lab ID | Client ID | | Matrix | Sampled Date l | d Time | Received Date |
|----------------------------------|-----------|------------------------------|--------------|----------------------------|-----------|------------------|
| 078162-0001-SA 078162-0002-SA | | (1.50,2.00,) (2.00,3.50,) | SOIL SOIL | 12 OCT 94 0 12 OCT 94 1 | | |

Samples recid in go Condition. 5 10/13/94, An bient temp= 4.0 TIME DATE TIME NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK DATE BILL OF LADING # -: /: ٧n 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY SIGNATURE RECEIVED BY SHIPPER. 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) 1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) SIGNATURE (0) RECEIVED BY: 2. NITRATE + NITRITE (E353.2) 1010 LABORATORY ANALYSES: 110 111 ANALYSES REQUESTED COLLECTED TYPE OF CONTAINERS CONTAINER VOLUME DATE/TIME TICAMI, I USC COMPANY NAME COMPANY NAME # OF CONTAINERS . 3. SEMI-VOCs (SW8270) 5. MERCURY (SW7471) PRESERVATIVE 7. CYANIDE (SW9012) 1.11.1 MATRIX PHILLIPS LABORATORY, KIRTLAND AFB 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL JEFF JOHNSON (GRAM) 505-299-1282 NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT STEVE GORIN (LATA) 505-880-3439 ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1.7) SIGNATURE SIGNATURE RELEASED TO SHIPPER BY: CONTAINER TYPES: - AG - AMBER GLASS P-POLYETHYLENE McCORMICK RANCH CO - CLEAR OLASS RELINQUISHED BY: (SITE ID, LOCATION ID, SAMPLE ID) SAMPLE IDENTIFICATION LABORATORY CONTACT: SECONDARY CONTACT: PRIMARY CONTACT: COMPANY NAME COMPANY NAME PROJECT NAME: KRTLD154 - ... KRTLD154 -KRTLD154-KRTLD154 KRTLD154 -KRTLD154-KRTLD154 -KRTLD154 -KRTLD154. KRTLD154 KRILDIS4. W-WATER O-OTHER MATRIX: S-SOIL.

TIME

DATE

SIGNATURE

COMPANY NAME

SIGNATURE

COMPANY NAME

RELEASED TO LABORATORY BY (SHIPPER):

RECEIVED BY LABORATORY:

0100

46/81/0



METALS

(Soil/Solid - Total)

Client Name: Gram, Inc. Client ID: 03110001 (1.50, 2.00,)

078162-0001-SA Lab ID:

Received: 13 OCT 94 Sampled: 12 OCT 94 SOIL Matrix: Analyzed: See Below Prepared: See Below Authorized: 13 OCT 94

| Parameter | | Dry Weight | Reporting | Analytical | Prepared | Analyzed |
|---|---|--|---|--|---|---|
| | Result | Units | Limit | Method | Date | Date |
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 7940 ND 2.2 127 ND ND 53100 8.5 ND 5.6 8210 4.0 3310 116 ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kkg mg/kkg mg/kkg mg/kk mg/kk mg/kk mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 52.6 15.8 0.53 10.5 1.1 0.53 105 5.3 5.3 5.3 0.53 105 2.1 0.11 10.5 15.8 526 0.53 5.3 5.3 5.3 5.3 5.3 5.3 5.3 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7740 6010 7740 6010 7841 6010 6010 6010 | 13 OCT 94 | 14 OCT 94 |

Percent Moisture is 4.9%. All results and limits are reported on a dry weight basis.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Keith Varvell Approved By: Mei Lai

> The cover letter is an integral part of this report. Rev 230787



METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.

(2.00, 3.50,) 03120001 Client ID:

078162-0002-SA Lab ID:

Received: 13 OCT 94 Analyzed: See Below Sampled: 12 OCT 94 Prepared: See Below Matrix: SOIL Authorized: 13 OCT 94

| Parameter | Result | Dry Weight Units | Reporting Limit | Analytical Method | Prepared Date | Analyzed Date |
|---|---|---|---|--|---|---|
| Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Molybdenum Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 6120 ND 2.2 128 ND ND 58100 6.0 ND ND 6230 2.9 2730 71.8 ND ND ND ND ND ND ND 14.7 13.6 | mg/kg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg mg/kkg | 52.9 15.9 0.53 10.6 1.1 0.53 106 5.3 5.3 0.53 106 2.1 0.11 10.6 15.9 529 0.53 5.3 5.3 0.53 | 6010 6010 7060 6010 6010 6010 6010 6010 6010 6010 7421 6010 6010 7471 6010 6010 7471 6010 6010 7740 6010 7740 6010 6010 6010 | 13 OCT 94 | 14 OCT 94 |

Percent Moisture is 5.4%. All results and limits are reported on a dry weight basis.

Note q: Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected NA = Not applicable

Reported By: Keith Varvell

Approved By: Mei Lai

The cover letter is an integral part of this report.

Rev 230787



QC LOT ASSIGNMENT REPORT Metals Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|--|--|--|---|--|
| 078162-0001-SA 078162-0001-SA 078162-0001-SA 078162-0001-SA 078162-0001-SA 078162-0001-SA 078162-0002-SA 078162-0002-SA 078162-0002-SA 078162-0002-SA 078162-0002-SA 078162-0002-SA | SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL | 7471-IRP-S 7421-IRP-S 7060-IRP-S 7740-IRP-S ICP-IRP-S 7841-IRP-S 7471-IRP-S 7421-IRP-S 7060-IRP-S 7740-IRP-S ICP-IRP-S | 13 OCT 94-T 13 OCT 94-B 13 OCT 94-BX 13 OCT 94-BX 13 OCT 94-BX 13 OCT 94-BX 13 OCT 94-T 13 OCT 94-B 13 OCT 94-B 13 OCT 94-BX 13 OCT 94-BX 13 OCT 94-BX 13 OCT 94-BX | 13 OCT 94-T 13 OCT 94-B 13 OCT 94-B 13 OCT 94-BX 13 OCT 94-B 13 OCT 94-T 13 OCT 94-B 13 OCT 94-B 13 OCT 94-B 13 OCT 94-B 13 OCT 94-B 13 OCT 94-B 13 OCT 94-B |



METHOD BLANK REPORT Metals Analysis and Preparation (cont.)

| Analyte | | Res | ult | Units | Reporting Limit |
|---|---------|--------------|----------------------------------|--|--|
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 13 OCT 94-B Nickel Potassium Silver Sodium Vanadium Zinc | QC Run: | 13 OCT 94-B | ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 15.0 500 5.0 500 10.0 2.0 |
| Test: TL-FAA-IRP-S Matrix: SOIL QC Lot: 13 OCT 94-BX Thallium | QC Run: | 13 OCT 94-BX | ND | mg/kg | 0.50 |



METHOD BLANK REPORT Metals Analysis and Preparation

| Analyte | | Result | Units | Reporting Limit |
|---|---------|--|---|---|
| Test: HG-CVAA-IRP-S Matrix: SOIL QC Lot: 13 OCT 94-T Mercury | QC Run: | 13 OCT 94-T | mg/kg | 0.10 |
| Test: PB-FAA-IRP-S Matrix: SOIL QC Lot: 13 OCT 94-B Lead | QC Run: | 13 OCT 94-B | mg/kg | 0.50 |
| Test: AS-FAA-IRP-S Matrix: SOIL QC Lot: 13 OCT 94-B Arsenic | QC Run: | 13 OCT 94-B | mg/kg | 0.50 |
| Test: SE-FAA-IRP-S Matrix: SOIL QC Lot: 13 OCT 94-BX Selenium | QC Run: | 13 OCT 94-BX ND | mg/kg | 0.50 |
| Test: ICP-IRPMS-S Matrix: SOIL QC Lot: 13 OCT 94-B | QC Run: | 13 OCT 94-B | | |
| Aluminum Antimony Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Magnesium Manganese Molybdenum | | ND ND ND ND ND ND ND ND ND ND ND | mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg | 50.0 15.0 10.0 1.0 0.50 100 5.0 5.0 5.0 100 2.0 10.0 |



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

Project: 078162

(cont.)

Category: ICP-IRP-S ICP Metals

STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL

OC Lot: 13 OCT 94-B

QC Run: 13 OCT 94-B

Concentration Units: mg/kg

| | Concent | ration | Accur | acy(%) |
|------------|---|----------|-------|--------|
| Analyta | Spiked | Measured | LCS | Limits |
| Analyte | • | | | |
| Aluminum | 3650 | 4120 | 113 | 75-140 |
| Antimony | 75.0 | 69.9 | 93 | 50-150 |
| Arsenic | 72.1 | 80.2 | 111 | 75-125 |
| Barium | 64.8 | 70.5 | 109 | 75-125 |
| Beryllium | 26.7 | 31.6 | 118 | 75-125 |
| Calcium | 2330 | 2530 | 108 | 75-125 |
| Cadmium | 61.6 | 64.5 | 105 | 75-125 |
| Chromium | 44.1 | 48.7 | 110 | 75-125 |
| Copper | 78.1 | 83.3 | 107 | 75-125 |
| Cobalt | 177 | 202 | 114 | 75-125 |
| Iron | 7360 | 8880 | 121 | 75-125 |
| Magnesium | 2550 | 2690 | 106 | 75-125 |
| Manganese | 141 | 156 | 110 | 75-125 |
| Molybdenum | 104 | 112 | 108 | 75-125 |
| Potassium | 3310 | 3360 | 101 | 75-125 |
| Lead | 50.9 | 53.5 | 105 | 75-125 |
| Nickel | 110 | 123 | 112 | 75-125 |
| Selenium | 74.2 | 80.4 | 108 | 60-140 |
| Silver | 71.7 | 72.7 | 101 | 75-125 |
| Sodium | 346 | 363 | 105 | 75-125 |
| Thallium | 64.1 | 69.8 | 109 | 75-125 |
| Vanadium | 83.0 | 89.2 | 107 | 75-125 |
| Zinc | 78.2 | 81.4 | 104 | 75-125 |

Category: 7841-IRP-S Thallium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL

13 OCT 94-BX QC Lot:

QC Run: 13 OCT 94-BX

Concentration Units: mg/kg

| Analyte | Concent Spiked | ration Measured | | racy(%) Limits |
|----------|-------------------|--------------------|-----|-------------------|
| Thallium | 64.1 | 74.0 | 115 | 65-135 |

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.



LABORATORY CONTROL SAMPLE REPORT Metals Analysis and Preparation

Project: 078162

Category: 7471-IRP-S Mercury by CVAA

STATIC QC LIMITS - DO NOT UPDATE

SOIL Matrix:

QC Run: 13 OCT 94-T 13 OCT 94-T OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration Spiked Measured LCS Limits Analyte 93 75-125 29.6 32.0 Mercury

Category: 7421-IRP-S Lead, Furnace AA

STATIC QC LIMTS - DO NOT UPDATE

SOIL Matrix:

QC Run: 13 OCT 94-B 13 OCT 94-B OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte | 65-135 95 48.4 50.9 Lead

Category: 7060-IRP-S Arsenic, Furnace AA

STATIC QC LIMTS - DO NOT UPDATE

SOIL Matrix:

QC Run: 13 OCT 94-B 13 OCT 94-B OC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration LCS Limits Spiked Measured Analyte 125 75-125 72.1 90.2 Arsenic

Category: 7740-IRP-S Selenium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL

13 OCT 94-BX QC Run: 13 OCT 94-BX QC Lot:

Concentration Units: mg/kg

Accuracy(%) Concentration Spiked Measured LCS Limits Analyte 70-130 115 74.2 85.0 Selenium

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.



GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc. Client ID: 03110001 (1.50, 2.00,)

078162-0001-SA Lab ID:

Sampled: 12 OCT 94 Prepared: See Below Received: 13 OCT 94 Matrix: SOIL Analyzed: See Below Authorized: 13 OCT 94

Prepared Analyzed Dry Weight Reporting Analytical Units Limit Method Date Date Result Parameter

Nitrate + Nitrite

353.2 Modified 27 OCT 94 27 OCT 94 0.26 (as N) 0.79 mg/kg

Percent Moisture is 4.9%. All results and limits are reported on a dry weight basis.

ND = Not detected NA = Not applicable

Reported By: Lori Ann Upton

Approved By: Jennifer Kimzey

The cover letter is an integral part of this report. Rev 230787



QC LOT ASSIGNMENT REPORT Wet Chemistry Analysis and Preparation

| Laboratory Sample Number | QC Matrix | QC Category | QC Lot Number (DCS) | QC Run Number (SCS/BLANK) |
|-----------------------------|-----------|-------------|------------------------|------------------------------|
| 078162-0001-SA | SOIL | NO3&NO2-S | 27 OCT 94-A | 27 OCT 94-A |
| 078162-0002-SA | SOIL | NO3&NO2-S | 27 OCT 94-A | 27 OCT 94-A |



LABORATORY CONTROL SAMPLE REPORT Wet Chemistry Analysis and Preparation

Project: 078162

Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.

Matrix: SOIL

QC Lot: 27 OCT 94-A QC Run: 27 OCT 94-A

Concentration Units: mg/kg

| Analyte | Concentr Spiked | ation Measured | | | racy(%) Limits |
|--------------------------|--------------------|-------------------|---|-----|-------------------|
| Nitrate + Nitrite (as N) | 2.50 | 2.53 | _ | 101 | 75-125 |

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

| PROJECT NAME: | McCORMICK RANCH | # OF CONTAINERS • | 14-01 1 | 2- Semala | lucedian | 1 16-01 br D- XMOLD 1400211/2 | | |
|--|--|--|-------------------------|-----------------|------------------|-------------------------------|------|------|
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | | 1 | | -1 | ·- | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | 1633 | | | | - | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 7,6 | | | 1 | | |
| LABORATORY CONTACT: | • | ANALYSES REQUESTED | 1 2 | 9 | • | 2 | 9,9 | - |
| SAMPLE IDENTIFICATION | | DATECTIME | | | | | | |
| HEID, LOCATION ID, SAMPLE ID) | rue ID) | I KIA COLLEC | | | \ \ | | | |
| RTLD154 - O 3 1 1 | | 51 : 10/11/14 0945 | | | 7 | 1 | 7 | |
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| PTI D154 | | | | | | | | |
| | | | | | | | | |
| KILD154 - | | | | | | | | |
| IATRIX | CONTAINER TYPES: | LABORATORY ANALYSES: 1 EVELOGINES (CW8110, ADD-1, SW8130, ADD-2) | 8430-ADD-1, SW8330- | ADD-2) | | | | |
| · SOIL• | CG-CIFAB GIASS | 2. NITRATE + NITRITE (E353.2) | 2) | | | | | |
| OTHER | AGAMBER GLASS | 3. SEMI-VOCs (SW8270) | | | | | | |
| VOTE: FOR SOIL SAMPLES O | NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | NUS LEAD, ARSENIC, | SELENIUM, AND M | ERCURY | | | |
| C IS REQUIRED TO PROVIDE | C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL | 5. MERCURY (SW7471) | Vew 2060) SEI ENITIN | (SW7740) | | | | |
| NALYSES, THE REQUIRED A RE IDENTIFIED BY CHECKIN | NALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMFLE. RE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 1) | 6. LEAD (3W /421), AKSENTO 7. CYANIDE (SW9012) | (3 W 1000), SELECTION | (0.110) | | | | |
| | RELINQUISHED BY: | RECEIVED BY: | ED BY: | | | | | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | ` | SIGNATURE | | DATE | TIME | |
| ATA' | 1. Man 1 x 2% | LARAM, ENC | 110 | | | 10/13/1/01 | 1131 | |
| いってあんし | JeH 3241150 | Bran Inc. | rest. | a INOTHER | | K. 11. 1 1-19 | 1156 | |
| | | | | | | T | | |
| REI | RELEASED TO SHIPPER BY: | | RECEIVED BY SHIPPER: | SHIPPER: | | | | 1 |
| COMPANY NAME | SIGNATURE | COMPANY NAME | SIGNA | SIGNATURE | BILL OF LADING # | LADING # | DAIE | IIME |
| Chrome Inch | 1 xx 1. 1 Mother | JAKer. | 11000 | | 5000 | | | |
| DEI FASED | PEL FASED TO LABORATORY BY (SHIPPER): | RE | RECEIVED BY LABORATORY: | TORY: | | | - | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | | SIGNATURE | | DATE | TIME | |
| THE PARTY IN THE P | | The state of the s | | | | | | |

7129/54 DATE TIME TIME 35 VOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK 4913218 SAMPLE ROCATION DATE DATE BILL OF LADING # 769646524 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY اعلى المدل ~ SIGNATURE SIGNATURE RECEIVED BY SHIPPER: 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) 3000 EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) SIGNATURE RECEIVED BY LABORATORY: 4055 1602 192 Ì RECEIVED BY: 2. NITRATE + NITRITE (E353.2) 1030 3 24 144 0915 9/25/94 0870 8/25/94 0820 5/26/44/ 1235 134D 8 hzshy 1207 8/26/94 1100 26/94 1713 COLO 16/02/3 ABORATORY ANALYSES: 8/25/64 1207 ANALYSES REQUESTED TYPE OF CONTAINERS DATE/TIME COLLECTED CONTAINER VOLUME # OF CONTAINERS • COMPANY NAME COMPANY NAME COMPANY NAME PRESERVATIVE 3. SEMI-VOCs (SW8270) S. MERCURY (SW7471) CYANIDE (SW9012) 8 125 Fry 10 E ATA MATRIX PHILLIPS LABORATORY, KIRTLAND AFB 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL **TEFF JOHNSON (GRAM) 505-299-1282** •NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT STEVE GORIN (LATA) 505-880-3439 ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 1). MS/MSD SIGNATURE SIGNATURE SIGNATURE RELEASED TO LABORATORY BY (SHIPPER); RELEASED TO SHIPPER BY: CONTAINER TYPES: McCORMICK RANCH P - POLYETHYLENE AG - AMBER GLASS CG - CLEAR GLASS RELINQUISHED BY: 0 0 0 0 0 ol 0 SITE ID, LOCATION ID, SAMPLE ID) 0 9 9 0 0 0 SAMPLE IDENTIFICATION LABORATORY CONTACT: SECONDARY CONTACT: PRIMARY CONTACT: ∞ COMPANY NAME PROJECT NAME: COMPANY NAME COMPANY NAME 0 CLIENT O 0 C KRTLD154-KRTLD154-KRTLD154-KRTLD154-KRTLD154 -KRTLD154 KRTLD154 -KRTLD154 -KRTLD154-KRTLD154 KRTLD154 -W-WATER D. OTHER MATRIX A77 S-SOIL.

| PROJECT NAME: | McCORMICK RANCH | # OF CONTAINERS | NOTE: MEASUR | NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK | PERATURE F | ROM TEMP | ERATURE | BLANK | |
|---------------------------|---|---|-------------------------|---|-------------|------------------|-----------------------|-------|------|
| CI IENT: | THE TOTAL ABOUT ABOUT A THE TANK A TEN | | | | J. Marx | C) L 236/ | \ \ \ \ \ | | |
| CLIENI | FRILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | 6655 | | | | | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | 1603 | | | | | | - |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | つった | | | | | | |
| LABORATORY CONTACT: | | ANALYSES REQUESTED | 1 | 2 | 3 | 4 | 8 | . 9 | 7 |
| SAMPLE IDENTIFICATION | idi a | DATETIME | | | | | | | |
| | | רסדרבי | | - | | k | | ļ | \ |
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| - TATRIX: | CONTAINER TYPES: | LABORATORY ANALYSES: | | | | | | | , |
| · SOIL• | P - POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | 78330-ADD-1, SW8 | 330-ADD-2) | | | | | |
| V - WATER | CG - CLEAR GLASS | 2. NITRATE + NITRITE (E353.2) | (2) | | | | | • | |
| NOTE: FOR SOIL SAMPLES ON | NOTE: FOR SOI! SAMPI ES ON! Y ONE 16-22 OI ASS 1AR OF SOI! AT | 3. SEMI-VOCs (SW8270) 4. ICP MFTALS (SW8270) WINDISTEAD ARSENIC SELENTIM AND MERCHRY | INTIS LEAD, ARSE | NIC SELENIUM | L AND MERCI | Y W | | | |
| C IS REQUIRED TO PROVIDE | C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL | 5. MERCURY (SW7471) | | | | | | | |
| MALYSES. THE REQUIRED AN | MALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE | 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) | (SW7060), SELEN | JUM (SW7740) | | | | | |
| ME IDENTIFIED BY CHECKING | ACTIVE VITTED BY CHECKING THE APPROPRIES BLACES (1:1) | 7. CTANIDE (SW9012) RECEIVED BY: | ED BY: | | | | | | |
| COMPANY NAME | SIGNĄTURE | COMPANY NAME | | SIGNATURE | Э | | DATE | TIME | |
| JUM INC | + A wando Mother | (ARAM) Inc | 1782 | Johnso | () | 16 | hart | 1435 | |
| | | | | | | | | | |
| RELI | RELEASED TO SHIPPER BY: | | RECEIVE | RECEIVED BY SHIPPER: | | | | | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | IS | SIGNATURE | H | BILL OF LADING # | # DNIC | DATE | TIME |
| GRAM INC | JOHN JOHN CON | K-11.24 | , hy | 1 mapal | | | | 9.2 | 15/5 |
| | | | 4 | / // | | | | | |
| RELEASED T | RELEASED TO LABORATORY BY (SHIPPER): | | RECEIVED BY LABORALORY: | OKATOKY: | | + | | E | |
| COMPANY NAME | SIGNATURE | COMPANY NAME | | SIGNATURE | E | | DATE | TIME | |
| | | | _ | | | - | | | |

CHAIN OF CUSTODY NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

| | | | Γ | NOTE: MEAS | | TEMPERAIL | JRE FROM TE | MPERATURE | BLANK | |
|-----------------------------------|---|--------------------------|--|--------------|-------------------------|------------|-------------|------------------|-------|---------|
| PROJECT NAME: | McCORMICK RANCH | # OF CON | # OF CONTAINERS • | 1/6-0- | 10 VO | LW3C J | 2010 | dai | | |
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF C | YPE OF CONTAINERS | 6/255 | - | | | | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAIN | CONTAINER VOLUME | 16 OF 0 | ده کر | | | | | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESE | PRESERVATIVE | 2017 | | | | | | |
| LABORATORY CONTACT: | | ANALYSES | NALYSES REQUESTED | - | 7 | 3 | - | 2 | ٠ | - |
| SAMPLE IDENTIFICATION | • | | DATE/TIME | | | | | | | |
| (SITE ID, LOCATION ID, SAMPLE ID) | LE ID) | MATRIX | COLLECTED | | | | | | | |
| KRTLD154-0255 | 1000- | 5 8 | 5/1/84 1022 | \ | | 1 | / | 1 | 1 | 1 |
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| KRTLD154 - | | | | | | | | | | |
| KRTLD154 - | | | | ٠ | | | | | | |
| KRTLD154 | | | | | | | | | | |
| MATRIX: | CONTAINER TYPES: | LABORATO | BORATORY ANALYSES: | | | | | | | • |
| S-SOIL* | P - PO: YETHYLENE | 1. EXPLOSIN | EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | 78330-ADD-1, | SW8330-ADD- | 2 | | | | |
| W - WATER | CG - CLEAR GLASS | 2. NITRATE | NITRATE + NITRITE (E353.2) | 1.2) | | | | | | |
| O-OTHER | AG . AMBER GLASS | 3. SEMI-VOC | SEMI-VOCs (SW8270) | | | | | | | |
| •NOTE: FOR SOIL SAMPLES O | •NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT | | ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | INUS LEAD, A | RSENIC, SELE | SNIUM, AND | MERCURY | | | |
| 4 C IS REQUIRED TO PROVIDE | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES THE PEOLIPPED ANALYSES FOR EACH SOIL SAMPLE | S. MERCUR 6. LEAD (SW | MERCURY (SW7471) LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) | (SW7060), SE | LENIUM (SW7 | 7740) | | | | |
| ARE IDENTIFIED BY CHECKIN | ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1-7) | | CYANIDE (SW9012) | | | | | Г | | |
| | RELINQUISHED BY: | | RECEIV | RECEIVED BY: | | | | | | |
| COMPANY NAME | SIGNATURE | сомь | COMPANY NAME | | SIGN | SIGNATURE | | DATE | TIME | _ |
| Jram, INC. | Phrank. Mother | CARAM | MITTE | No. | Stahr | 20 | | 13/6/8 | 2571 | ٠. |
| | | | | | | | | | | 1 |
| REI | RELEASED TO SHIPPER BY: | | | RECE | RECEIVED BY SHIPPER: | PER: | | | | |
| COMPANY NAME | SIGNATURE | COMP | COMPANY NAME | | SIGNATURE | 3 | BILLO | BILL OF LADING # | DATE | E . |
| GASHA, SINC | TANK JOHNSA | j | 200 | The View | antho | | | | 7.6 | () () |
| | | | | | , | | | Г | | |
| RELEASED | RELEASED TO LABORATORY BY (SHIPPER): | | - 1 | ECEIVED BY | RECEIVED BY LABORATORY: | | | 1 | 27.00 | _ |
| I COMPANY NAME | SIGNATURE | CONT | COMPANY NAME | | SIGN | SIGNATURE | | DAIE | I IME | |
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NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

MOST RE-SAMPLE

| PROTECT NAME. | M-COBMICK BANCE | # OF CONTAINEDE. | E COOLER TE | ATUKE FROM LEN | IPEKATUKE E | - SLANK | |
|-----------------------------------|--|-------------------------------|---|----------------|-------------|---------|-----|
| FRUJECI NAME: | MCCORNICA KAVCH | # OF CONTAINERS | | THE THUSE IN | | | |
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | 9 (41) | | | | |
| PRIMARY CONTACT: | IEFF JOHNSON (GRAM) 505-299-1782 | CONTAINER VOLUME | 209/ | | 1 | 1 | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | ار | | 1. | - | - |
| LABORATORY CONTACT: | | ANALYSES REQUESTED | 5 7 1 | - | , | | |
| SAMPLE IDENTIFICATION | • | | | | | | |
| (SITE ID, LOCATION ID, SAMPLE ID) | 'LE ID) | MATRIX COLLECTED | | | | - | |
| KRTLD154. O Z 6 6. | .000. | 5 9/1/4 0957 | / | / | 1 | 1 | 1 |
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| KRTLD154 - | | | | | | | |
| MATRIX: | CONTAINER TYPES: | LABORATORY ANALYSES: | | | | - | * |
| S.SOIL. | P. POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW | EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | | | | |
| W.WATER | CG - CLEAR GLASS | 2. NITRATE + NITRITE (E353.2) | 2) | | | | |
| 2 THER | AG AMBER GLASS | 3. SEMI-VOCs (SW8270) | A PROENTY AND THE PARTY A | A BLOGSK GR | | | |
| •NOTE: FOR SOIL SAMPLES OF | NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz OLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MII | ICP METALS (SW6010); MINUS LEAD, AKSENIC, SELENIUM, AND MERCUKI | ND MERCON! | | | |
| ANALYSES THE REDITIBED AT | A C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLCOME FOR ALL | 6. LEAD (SW7421), ARSENIC | LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) | | | | |
| ARE IDENTIFIED BY CHECKIN | ARE IDENTIFIED BY CHECKING-THE-APPROPRIATE BOXES (17) | | | | | | |
| | RELINQUISHED BY: | RECEIVED BY: | | | | | |
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| PROJECT NAME: | McCORMICK RANCH | # OF CONTAINERS • | 2.1 | 2 1 - 10 | 2 | - | | | |
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | A/c ' | A | AG | ٨ | AG | ٦ | ما |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | M COO/ | 120 | =[| | 핔. | (000 m) | Som |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 7,4 | 7,5 | 7,7 | TABS 470 | 77.45 | THE COM | WOH YC |
| LABORATORY CONTACT: | | ANALYSES REQUESTED | - | 7 | - | _ | מנ | , | - |
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| s soil. | P-POLYETHYLENE | 1. EXPLOSIVES (SW8550), a | 44 23 U-ALLIZ-1, 3 V | - Convence u | | | | | |
| W - WATER O - OTHER | CG - CLEAR GLASS AG - AMBER GLASS | 2. NIIKALE + NIIKULE (E333.2) 3. SEMI-VOCs (SW8270) | (7:50 | | | | | | |
| FOR SOIL SAMPLES ON | NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | MINUS LEAD, AR | SENIC, SELEY | NIUM, AND I | MERCURY | | | |
| QUIRED TO PROVIDE S ES. THE REQUIRED AN | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE | MERCURY (SW7471) LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) | IC (SW7060), SEL | ENIUM (SW77 | 740) | | | | |
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| CLIENI: | PHILLIPS LABORATORY, LIKELAND AFB | I YFE OF CONIAINERS | 3 | | | | | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 303-299-1282 | CONTAINER VOLUME | 0, | - | | | | | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 7 6 | | | | | | . |
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| S-SOIL* | P. POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8330-ALIL-1, SW8330-ALIL-1) | 8330-ALDE-1, 30 | w 8330-AUL-4) | | | | | |
| > W.WATER | CG - CLEAR GLASS AG - AMBER GLASS | 3. SEMI-VOCs (SW8270) | (7. | | | | | | |
| •NOTE: FOR SOIL SAMPLES OF | •NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | NUS LEAD, AR | SENIC, SELENII | UM, AND N | TERCURY | | | |
| 4 C IS REQUIRED TO PROVIDE | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL | 5. MERCURY (SW7471) | | | | | | | |
| ANALYSES. THE REQUIRED A | ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE | 6. LEAD (SW7- 21), ARSENIC (SW7060), SELENIUM (SW7740) | (SW7060), SEL | ENIUM (SW7740 | 6 | | | | |
| ARE IDENTIFIED BY CHECKIN | ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 · 1) | 7. CYANIDE (SW9012) | | | | | • | | |
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MODIL 4 DATE TIME 1205.4° TIME NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK DATE DATE BILL OF LADING # WW, 4" P 23535 443° 250 7 4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY FON メ AG SIGNATURE ب ح SIGNATURE 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) RECEIVED BY SHIPPER: EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) SIGNATURE RECEIVED BY LABORATORY: 3 A F RECEIVED BY: NITRATE + NITRITE (E353.2) 8 LABORATORY ANALYSES: ANALYSES REQUESTED TYPE OF CONTAINERS COLLECTED CONTAINER VOLUME DATE/TIME COMPANY NAME COMPANY NAME 3. SEMI-VOCs (SW8270) COMPANY NAME # OF CONTAINERS 5. MERCURY (SW7471) PRESERVATIVE 7. CYANIDE (SW9012) 4/11/64 MATRIX 3 PHILLIPS LABORATORY, KIRTLAND AFB 子の方でしていること 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL JEFF JOHNSON (GRAM) 505-299-1282 *NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT STEVE GORIN (LATA) 505-880-3439 ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7) SIGNATURE SIGNATURE SIGNATURE RELEASED TO LABORATORY BY (SHIPPER): RELEASED TO SHIPPER BY: CONTAINER TYPES P - POLYETHYLENE McCORMICK RANCH AG - AMBER GLASS CG - CLEAR GLASS RELINQUISHED BY: Ŏ (SITE ID, LOCATION ID, SAMPLE ID) SAMPLE IDENTIFICATION LABORATORY CONTACT: SECONDARY CONTACT: PRIMARY CONTACT: COMPANY NAME COMPANY NAME COMPANY NAME PROJECT NAME: 3 CLIENT FRAM KRTLD154 -KRTLD154-KRTLD154-KRTLD154 KRTLD154 KRTLD154 KRTLD154 KRTLD154 KRTLD154 KRTLD154 KRTLD154 W - WATER O.OTHER MATRIX: S-SOIL*

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| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | ارط | | | | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | 1603 | | | | | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 4 م م | | | | | |
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| S-SOIL. | P - POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | 8330-ADD-1, SW8330-ADD 3) | (7 | | | | |
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| PROJECT NAME: | McCornick Ranch | # OF CONTAINERS • | 1-16+1 | 1. Just 500 | 0 - 1c - D | | 1 |
| CLIENT: | PHILLIPS LABORATORY, KIRTLAND AFB | TYPE OF CONTAINERS | ال ال | | - | | |
| PRIMARY CONTACT: | JEFF JOHNSON (GRAM) 505-299-1282 | CONTAINER VOLUME | //c a } | | | | |
| SECONDARY CONTACT: | STEVE GORIN (LATA) 505-880-3439 | PRESERVATIVE | 7,6 | | | | |
| LABORATORY CONTACT: | | ANALYSES REQUESTED | 1 2 | 3 4 | 8 | 9 | - |
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| MATRIX; | CONTAINER TYPES: | LABORATORY ANALYSES: | | | | | • |
| S-SOIL* | P - POLYETHYLENE | 1. EXPLOSIVES (SW8330, SW8 | EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2) | | | | |
| W - WATER | CG - CLEAR OLASS | 2. NITRATE + NITRITE (E353.2) | 2) | | | | |
| O OTHER | AG - AMBER GLASS | 3. SEMI-VOCs (SW8270) | | | | | ٠. |
| NOTE: FOR SOIL SAMPLES O | *NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 OLASS JAR OF SOIL AT | 4. ICP METALS (SW6010); MIP | ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | M, AND MERCURY | | | |
| 4 C IS REQUIRED TO PROVIDE | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL. A MAI YOR THE DECIMPED ANALYSES FOR FACH SOIL SAMPLE. | 5. MERCURY (SW/4/I) 6. LEAD (SW/421), ARSENIC (| MERCUKY (SW /4/1) LEAD (SW 7421), ARSENIC (SW 7060), SELENIUM (SW 7740) | | | | |
| ARE IDENTIFIED BY CHECKIN | ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1.7) | 7. CYANIDE (SW9012) | | | • | | |
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| | | the state of the s | 7. CYANIDE (SW9012) | |
| | | W7060), SELENIUM (SW7740) | 6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740) | ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE |
| | | 243 | 5. MERCURY (SW7471) | 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL |
| 神经 | | ICP METALS (SW6010), MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY | 4. ICP METALS (SW6010); MINI | NOTE: FOR SOIL SAMPLES ONLY ONE 16-02 GLASS JAR OF SOIL AT |
| が持ち | | | | |
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| _ | 100 de 1 | 1.1.1 | CONTAINER VOLUME | JEFF JOHNSON (GRAM) 505-299-1282 |
| では 一大学の大学 | 华香。 | الله الله الله الله الله الله الله الله | TYPE OF CONTAINERS | PHILLIPS LABORATORY, KIRTLAND AFB |
| | 4 | | # OF CONTAINERS • | |

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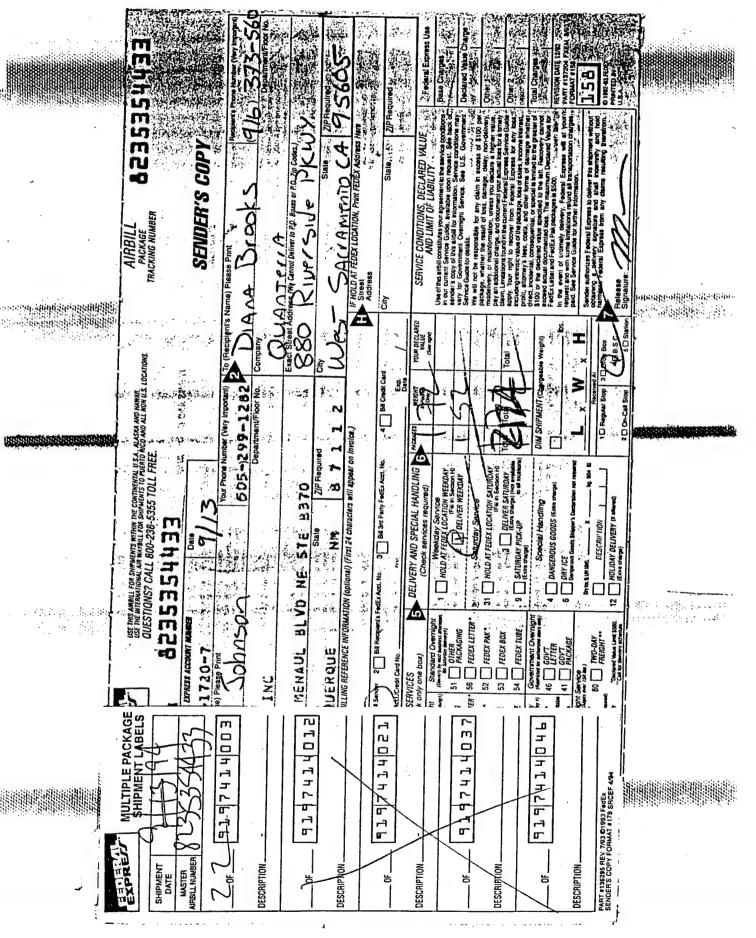
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